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JANUARY 1986

3

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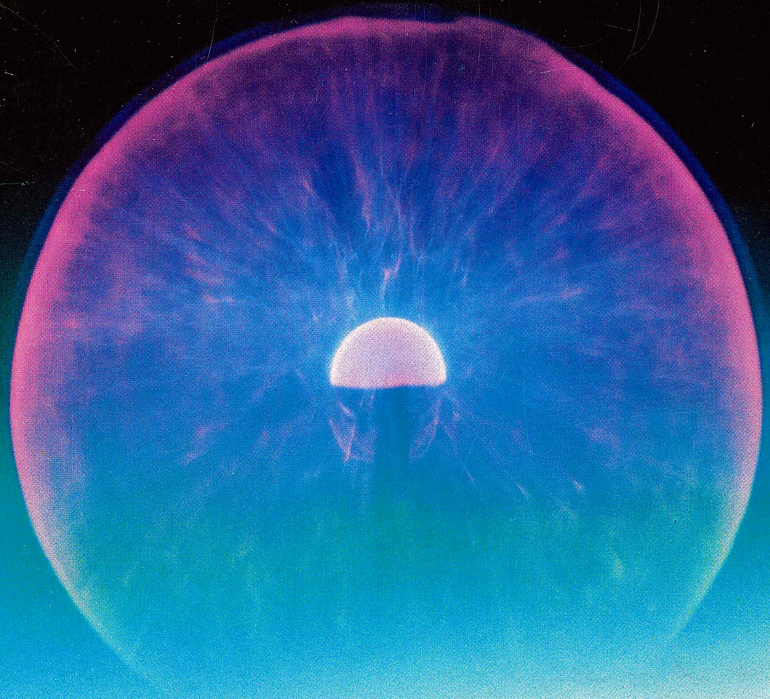


VALDOCS

APPLICATIONS

Cardfile

Semidisk 2M

SOFTWARE EVALUATIONS

Champion

CompuChart

Personal Pearl

Home Money Manager

HARDWARE EVALUATIONS

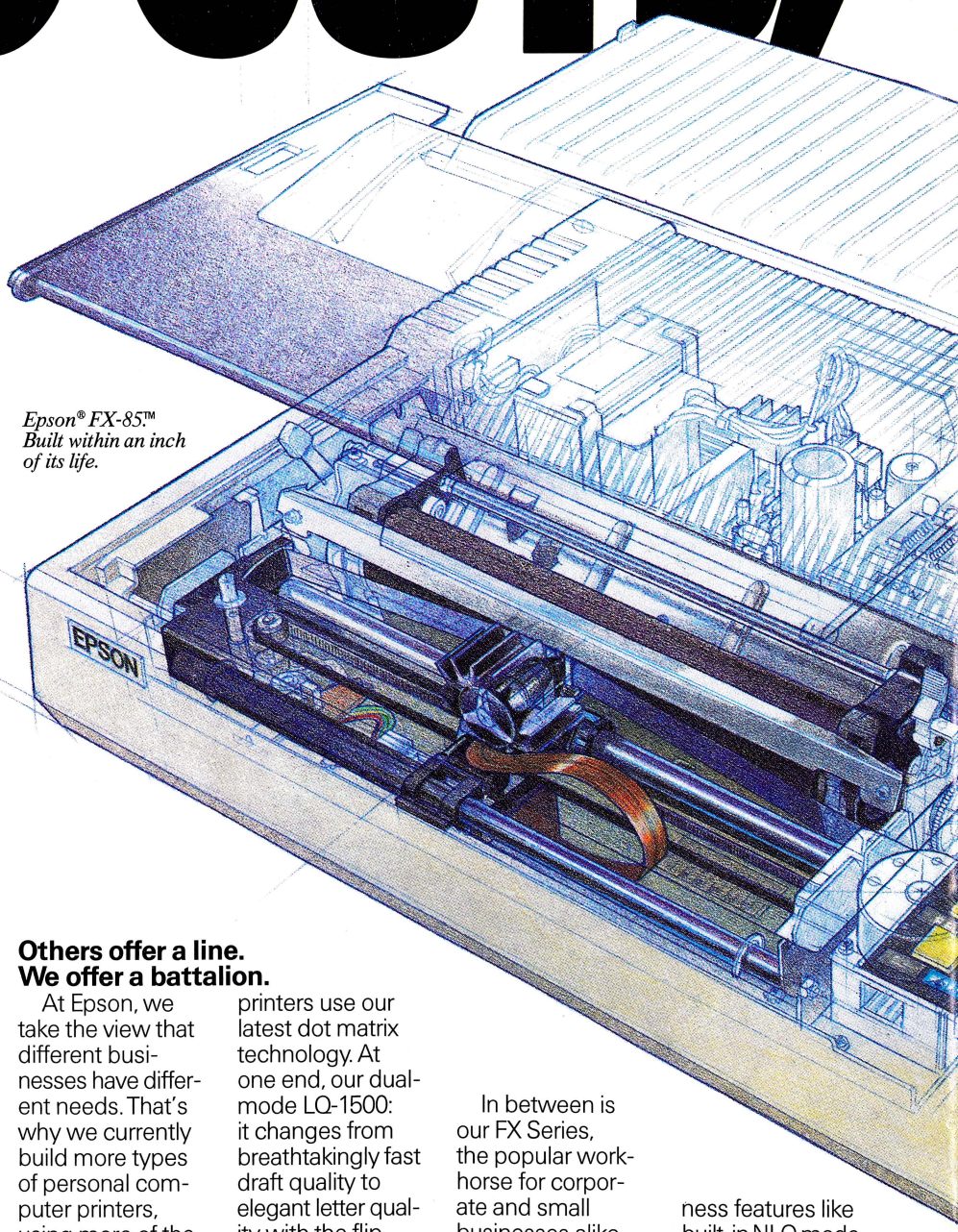
SQ-2000 Printer

P-80 and 80X Printers

CR128 Buffer

PRO Hard Drive

NO GUTS.



Epson® FX-85.™ Built within an inch of its life.

Most people credit the personal computer for the stunning transformation in business creativity.

But hold on.

It's one thing to run down the hall waving a *computer* with your latest brainstorm. Quite another to run down the hall waving a *piece of paper.*

Which is why, in 1964, Epson engineers invented the first dot-matrix printer to use with the computerized equipment they had designed for the Olympic Games. With it, at last, there was a complete computer *system* that could take man's most creative ideas, translate them into words and images, and churn them out the other end...on paper... in all their glory.

Small wonder that we prepare every Epson printer to be the guts of that system.

What being first has to do with being best.

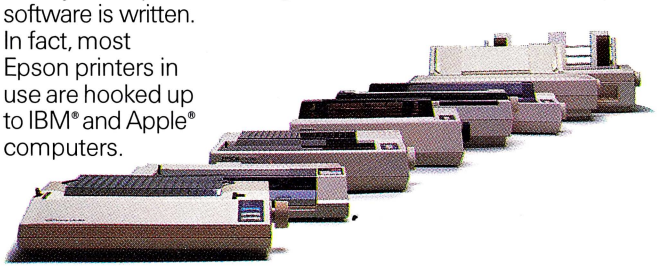
For one thing, it means we've had the most time to refine a fairly sophisticated piece of equipment.

For another, Epson printers have become the industry standard for which virtually all major computer software is written. In fact, most Epson printers in use are hooked up to IBM® and Apple® computers.

Others offer a line. We offer a battalion.

At Epson, we take the view that different businesses have different needs. That's why we currently build more types of personal computer printers, using more of the popular technologies, than IBM, Apple and one or two others... combined.

Eight of those printers use our latest dot matrix technology. At one end, our dual-mode LQ-1500: it changes from breathtakingly fast draft quality to elegant letter quality with the flip of a switch. At the other, our Homewriter™ 10: Epson reliability, and a very attractive price.



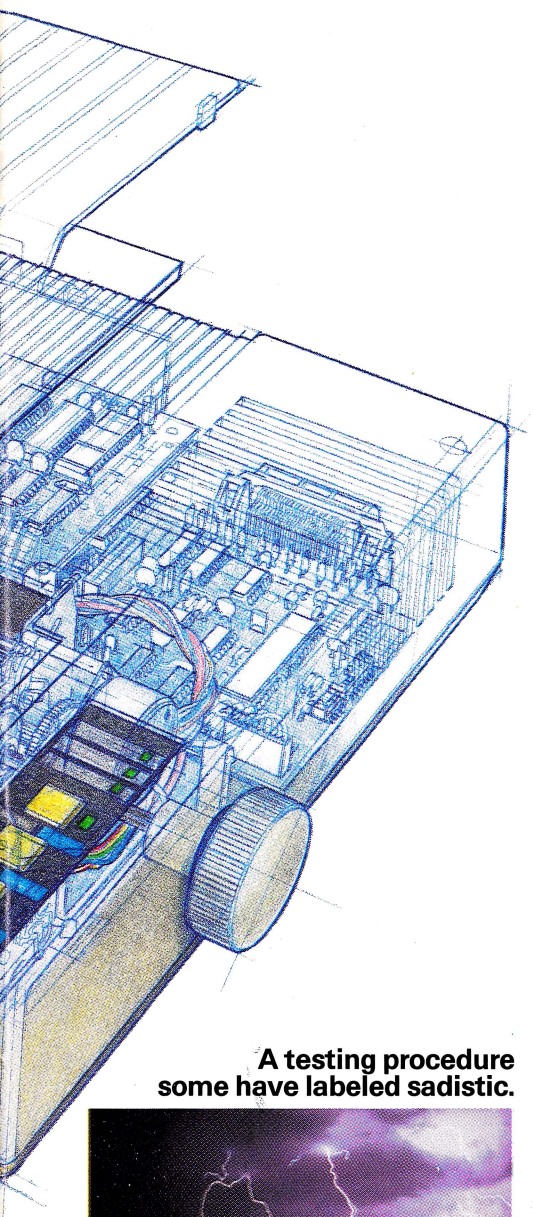
In between is our FX Series, the popular workhorse for corporate and small businesses alike, newly upgraded to offer a built-in Near Letter Quality mode, a standard 8K buffer, and even greater ease-of-use and compatibility with today's most popular PC's.

Also, the LX Series. Designed specifically for home, and home business usage, but with big business features like built-in NLQ mode, and SelecType pushbutton type selection.

Plus specialized machines like our ink-jets, portables, color plotter, and color printer.

Together, they represent the most comprehensive choice of features and specifications available in the personal computer printer category.

NO GLORY.



A testing procedure some have labeled sadistic.

Every Epson printer goes through a series of tests, personally designed by our Czar of Quality Control, to make life in the real world seem tame.

For instance, we know our printers don't keep banker's hours. They turn it out all day, and often all night, without a break. So, in one test, we let a printer print, 24 hours a day, non-stop, day in, day out, to see if it will fail.

When we're designing a printer, we conduct what is affectionately known as the "run and stun" test, to see if it can withstand the rough voltage equivalent of a lightning bolt, in mid-operation, without a loss of character. If it can, it will certainly withstand minor annoyances like power surge and the static charge you carry from walking around on new carpeting.

The result? A printer that can take it as well as dish it out.

The Czar of Quality Control.

FX-85/185 FEATURES

Print Method:
9 pin, impact

Print Head Speed:
160 CPS draft mode
32 CPS NLQ mode

Character Sets:
96 ASCII set
italic set
11 internat'l sets
3 NLQ sets
11x9 user def. sets

Paper Feed:
FX-85 friction/pin
FX-185 frctn/tractor

Interfaces:
(standard)
Centronics® parallel
(optional)
RS-232-C serial
IEEE-488

Physical Dimensions:
FX-85 4" x 7.5" x 13.5"
FX-185 5" x 23.5" x 14"

Hardware Features:
8K Buffer
DIP sw. selectable
IBM 5152 and
Epson Std. Code.

At last, a warranty worth the paper it's printed on.

Most printers carry a ninety day warranty. Every Epson printer comes with a *full year* warranty. Not because you're ever likely to need it. But because it says something about how much faith we have in the way we build our machines.

No matter how good a warranty someone offers you, though, it's only as strong as the reputation of the people behind it. When you buy a printer from Epson, you're staking your business on how well we know our business. And we think, after twenty years, we have the guts of it figured out.

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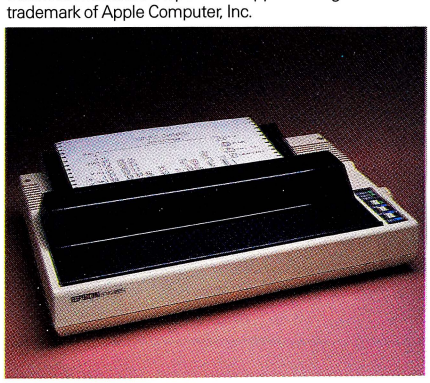


For information on the complete line of Epson printers, call (800) 421-5426, or (213) 539-9140 in California.

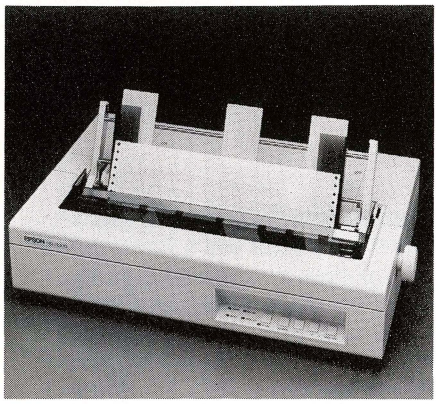
EPSON

PRINTERS

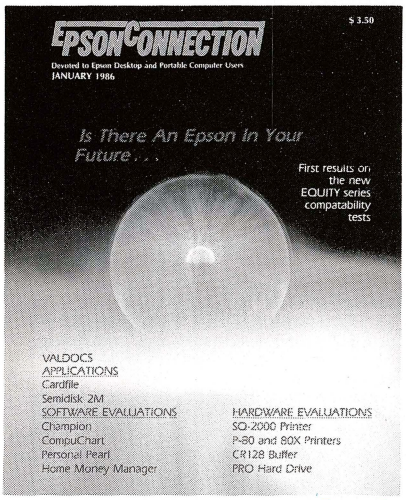
EPSON CONNECTION

JANUARY 1986 VOLUME 4 NO. 1

FEATURES



Page 29



Page 5

COVER:

Photography by Bill Taylor Studio, 9926 Conner Ave., Detroit, MI 48213. (313)372-7363.
Concept & creation by McCarthy & Wills, EpsonConnection.

NEWWORD *by Mark Miller* 10
A WordStar-like program with mailmerge at an attractive price.

HOME MONEY MANAGER *by Larry Hufty* 13
An easy to use, inexpensive, and versatile home financial system.

CHAMPION *by Jerry E. Howell* 18
A superior business, and accounting software package for CP/M and MS-DOS systems.

EQUITY SOFTWARE LISTING *by Bill Howey* 20
A listing of all software and hardware that has been tested, to date, on the Epson Equity computers.

FORM LETTERS WITH VALDOCS 2 & CARDFILE *by Dan Oja* 24
A procedure to print customized letters using Valdocs 2 and information from the Cardfile program.

COMPU/CHART *by Larry Hufty* 26
An easy, well written program to plot trend analysis without the use of graphics.

PERSONAL PEARL *by Franc La Clair* 28
A very comprehensive, easy to learn and use, personal and business database management program.

SQ-2000 INK JET PRINTER *by Mike Van Winkle* 29
A State-of-the-Art, quiet and extremely fast, ink jet printer.

THE P.R.O. SYSTEM 10M HARD DRIVE *by Allen Howell* 31
A dependable alternative to the Comfiler.

CR-128K PRINTER BUFFER *by Bob Hermann* 33
Don't wait for your printer any longer. A printer buffer is a must for efficient computer operations.

VALDOCS+ & THE 2M SEMIDISK BOARD *by David Robinson* 36
Installing the 2M SemiDisk board and using it with Valdocs+.

EPSON's P-80 PORTABLE PRINTER *by Sherwin Levinson* 37
The P-80 provides convenient, rugged and relatively quiet printing.

P-80X PORTABLE PRINTER *by Bob Hermann* 39
A printer nearly identical to the P-80 with the addition of near-letter-quality.

DEPARTMENTS

AD INDEX 44
CUSTOM ROM's 44
DISK of the MONTH 11
EDITORIAL 3
HX EXCHANGE 35
LETTERS to the EDITOR 7
NEW PRODUCTS 40
QUESTIONS & ANSWERS 4
RX for PX 41
TAPE of the MONTH 41
UPNOTES 8
USERS COLUMN 5

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THE EPSONCONNECTION

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Editorial

There will indeed be an Epson product in more and more businesses and homes this next year. The products creating a tremendous amount of excitement are the new EQUITY I, II, and III computers, recently shown by Epson America at the November Comdex computer show, as well as the new Valdocs+ release by Rising Star Industries for the Epson QX computers. Third party hardware and software producers are impressed with the IBM compatibility of the new EQUITY series. We have included a chart in this issue of items tested to date with the various Equity computers (page 20). Although there are many competitors for the Equity market, Epson, with its name for quality hardware, has established a price that is hard to beat.

Valdocs and Rising Star fans will be pleased to know that RSI has officially announced they will be continuing to support Valdocs 2 as well as Valdocs+. The first week of December, RSI began shipment of the Valdocs+ , Draw and Paint updates to original purchasers of the package, and the V2.01 update was sent to various distribution points. Users may still send their original Valdocs 2 disks to RSI to be updated. The next Valdocs+ update is scheduled for release in January, and Gale Carr, President of RSI, said the spelling checker will be included in that release, but the thesaurus may not be ready until a later update. RSI was present at the Comdex show in the Atari booth. They demonstrated several of their modules on the Atari 520ST computer, which are scheduled for release in early 1986. The Mail, Draw, Paint, and Scheduler modules were demonstrated and had a familiar Valdocs 2 look. A new music synthesizer program is also being marketed by RSI, thanks to the efforts of Malcolm Cecil, previously with Epson America, and now part of the RSI team. We wish RSI success with its venture with Atari, and are pleased with the continuing work on Valdocs+.

The Valdocs+ update arrived in my hands as this issue went to press, and due to the number of new features, we are delaying our Valdocs+ article until the February issue. This issue includes instructions on how to maximize you use of Valdocs+ on the SemiDisk Board, and a technique to do mailmerge with Valdocs 2.

An overwhelming number of our readers, who chose to write, has felt that RSI took advantage of QX owners with the release of Valdocs+ right on the heels of the Valdocs 2 upgrade, and are angry about the amount of money charged. A survey of user groups' newsletters suggests an entirely different picture; user groups are generally pleased with the Valdocs+ release. I was angry as I sent a personal check for $400 to RSI in order to receive the Valdocs+ package. Angry because, like so many readers, I too feel we have been used like "guinea pigs" in the development of a software package which promised "the world", yet couldn't be used for risk of losing text and the index (this proves disastrous, especially in this business). The editorial would look strange if the page was printed with only the words "ERROR 16" written on it.

In reflection. I have been using, and continue to use, an excellent computer. The Valdocs "easy to use" interface (even with the bugs) gave me the confidence to enter the computer-user world, and then to expand outside of Valdocs. The reports from users on CompuServe, the bulletin board networks, and local users groups are all highly positive concerning Valdocs+. No more crashed indexes or lost files, features are better integrated, and errors are generally self-correcting. At last, "this is what user-friendly computing is all about" can be said with confidence. Looking around at the Comdex computer show I did not find another product that is as integrated, easy to use, and includes even half of the special merge, graphics, draw, and word processing features of Valdocs+. If you have a QX computer, like the Valdocs concept (which originally sold you on the machine), and can get over the past, often stressful memories of development, Valdocs+ is definitely worth the investment.

This year we are concentrating on reducing our production costs. You will notice the change in paper to a flat stock, and we are pleased to have moved to a more efficient printing process. We appreciate the concern and suggestions which several of you in the publishing business have sent in to us. This has been my first experience in publishing, and as we continue to provide you with a quality publication, we appreciate the opportunity to learn from you.

The "crystal ball" on the cover is a new addition to my household (see page 5), and gazing into it I predict an increase in Epson Computer product owners in the coming years, an increased value placed on the discontinued QX computers, and of course more printers. I wish you all a very successful and fulfilling year ahead.

Carolyn J. McCarthy

Questions & Answers

Q. Two questions. I'm using a QX-10 with a Comrex CR-II printer and Valdocs 1.19. I can't get my system to underline text. I follow the procedure in the user's guide, but the machine will not underline no matter what I do. Could you please review system setup values or perhaps some settings that have to do with my printer? Second question: I'm presently living in Honolulu, Hawaii, on the island of Oahu. I've checked my local directory, but cannot find any Epson QX-10 service centers. Are there any authorized QX-10 service centers on the islands? Thank you for your help.

Capt. P.T. Deutermann, USN
Honolulu, HI

A. *Assuming that you mean you cannot get your printer to underline, you may wish to try this setting: All of your printer's DIP switches should be down, except number 4 of set one, which should be up. Also, within the printer setup configuration of Valdocs 1.19, set it for a CR-II/CR-III printer; Auto LF after CR = OFF; Permanent buffer = NO. If you are referring to underlining on your screen, the STYLE key should toggle the underlining.*

Epson West informed us that there are no authorized Epson QX-10 service centers on the islands, and that it'll be necessary to send any defective units to them. Their Computer Product Service Division phone number is: (714) 532-3746 if you find it necessary to return your unit, call first to get an RMA number.

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Q. In your October issue, page 7, in response to Les Winick, you state that "LQ series printers can print" the characters on the HASCI keyboard. Perhaps so, but no one has been able to tell me how.

Beardsley Graham
Bend, OR

A. *Simple. You need to use Valdocs 2 or greater, and you MUST have your printer turned on and on-line before you boot Valdocs so that Valdocs can download the graphics character set to the printer as it's booting. If your printer is turned off anytime while you are using Valdocs, your printer will loose the down-loaded graphics character set resulting in unexpected output, and you will need to boot-up again. We double-checked the symbols you claim do not print, and they all print out successfully on our LQ-1500.*

Q. I have an Epson QX-10 and QX-16 and I would like to get Valdocs+ for my computers. Need I purchase separately Val+ packages or is it interchangeable between computers. Also, I have Valdraw and Valpaint for my QX-10, but when I try to run it on my 16, I get so much graphic garbage that the program is useless. Does Valdraw work on the QX-16?

John Long
Columbus, OH

A. *Both versions work on both computers, however, the TPM operating system is different. Valdocs+ includes a program called QX16V371.SYS that will install the QX-16 TPM operating system on your system disk to maintain the 16's quad density drives and it's TPM RAM disk.*

When you install Valdraw and Valpaint on your system, be sure you don't overwrite the latest version of INDX.OVL (on your Valdocs + disk) with the one that is on the Valdraw disk. Copy only the VALDRAW.SYS and VALPAINT.SYS programs and data files.

Also make sure that your QX-16 is using bit graphics, (go into SETUP and check Terminal Characteristics), and not character graphics.

Q. I am in the market for a Utility Billing System that I can run on my Epson QX-10. I will be performing the billing functions for a water system that will have approx. 1500-2000 customers. I will be producing the monthly water bills and misc. reports only, no Accounts Receivable. Do you know of any commercial or public domain software that is available that can do this? If I can't find the software that I am looking for, I plan to develop the software myself. I am using Microsoft BASIC. Would it be to my advantage to use RSI BASIC?

Dolon L. Brown
Wallace, N.C.

A. *We don't know of any program that is specifically set up for this application.* **Perhaps another reader can help us out here.** If you plan on billing customers, it sounds like a job for an Accounts Receivable program, but you say you do not need this. RSI BASIC would only be necessary if you planed on using elaborate graphics with your program, and since most all business and data base programs do not require this, MBASIC should do just as well. If you are new to MBASIC programming, it may take you months or years to create such a program in MBASIC (or any high level language). Since your application is in the field of data base management, perhaps existing data base software could suit your needs the best. For the most flexibility, we recommend dBASE-II. For an easy to use program, such programs as Friday, or Brian Lomasky's DBMS may also do the job.

The Users

Valdocs 2 Line Spacing Tip

There is a bug in the line spacing option of Control O of the 2.0 Editor (including the update). Under certain conditions when the spacing is set to 2.0, a malfunction will occur in which, (a) the screen's LS indicator shows some strange value, like 2.5 or 8.3, (b) the highlighting in the <L>ine spacing option of Control 0 disappears (and cannot be made to re-appear), and (c) the document in question prints out only in 1.0 spacing.

I have found a relatively simple way to rectify the situation. The steps are as follows:

(1) Start a new file and use Control 0 to change the line spacing to 2.0.
(2) Type the first line of the old file.
(3) Press RETURN so that the cursor moves to the left margin below the first line.
(4) Retrieve the old file. When it appears on the screen there will be a one line space between the new file and the beginning of the old file.
(5) Using the right-delete and line keys, erase (a) the empty line between the two files and (b) the first line of the old file. And viola! The entire file is converted to 2.0 spacing.

Robert Schick
Northridge, CA

Passing a Valpaint Picture to the Editor in Valdocs +

Future upgrades of Valpaint will make passing pictures to the Editor easy, but how do you do it with the initial release? Get into Valpaint, draw the picture you want, and store it as a non-compressed document. Then go to the EDIT module and retrieve it as a non-indexed file (Quirks menu). Non-compressed produces files that are quite large, so make sure that you have plenty of space on you data disk. Your Editor document will grow correspondingly large once the picture is brought in. Don't use the Block menus within the picture; just leave it alone once it gets into the editor. *Re-printed from "The Scratchpad" Newsletter of the Portland Epson Group, Nov. '85.*

Judy Sharp
Albuquerque Epson Users Group

NLQ With Valdocs 2

The FX-85 selectype option can be used to select NLQ (Near Letter Quality), but only after Valdocs 2 has been booted up. Note, if you boot up Valdocs 2 after the printer has been set to NLQ, the printer will form feed continuously. *Re-printed from the "Epsonians", Nov. '85. Newsletter from Epson users of North, East Florida.*

Little Things

Valdocs + includes a number of LITTLE improvements which make it nicer to use than its predecessors.

Entering new names in the AddressBook, for example, you will now find the baud-rate for each name defaults to the same baud-rate you have chosen for your <C>ommunications parameters in "SETUP". Formerly the default was 300 baud, regardless of what you chose in SETUP.

Cursor movement in the Editor is MUCH smoother. Hold down <CTRL> with the "up" or "down" arrow to scroll through a document, then release the <CTRL> key and the scrolling stops instantly. Same thing with the left-right cursor keys and the delete keys.

Did you ever use <CTRL>QR to bring a (non-indexed) ASCII file with margins different from the usual "10-70" into the Editor? Possibly a converted WordStar file, or some text you had downloaded from a BBS, or a spreadsheet? Remember how you usually had to erase the screen and start over by first changing the margins to correspond to what you "think they might be" in the non-indexed document? It's not necessary in Val +, a document of any width less than 80 characters will go right into the Editor with no trouble, regardless of the margin settings. *Re-printed from the "EPS'N LINK", Nov. '85. Newsletter of the Epson Club of Toronto.*

Valdocs 2 Sub and Superscripts Using the RX-80

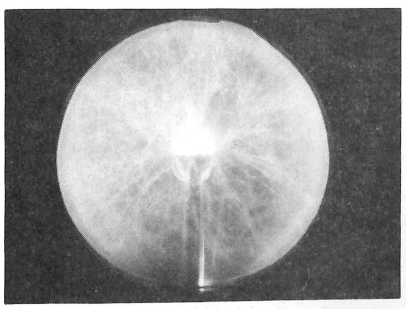
In the October 1985 issue of the EpsonConnection I noticed an article in "The Users" section entitled "Sub and Superscripts With the RX-80" written by Ed Acheson of Decatur, IL. I ran across the same problem as Ed in the inability to print sub and superscripts in Valdocs 2.0 with the RX printer. Ed listed a seven step procedure enabling the use of the special character set. I have found a simpler method in which RX-80 owners may be interested. The only thing you have to do is setup the system for the LX-80 printer. I have had no bad experiences since doing this.

Bill D. Stratman
Chino Hills, CA

Eliminate a VAX Terminal

Bill DeClaire reported the public domain VT100.COM, available off local bulletin boards worked very well but noted that it works much better under CP/M 2.2A rather than 2.25. Under 2.25, there were problems. *Re-printed from the "AAAEUG Newsletter", October, 1985. Newsletter of the Ann Arbor Area Epson Users Group.*

About The Cover



The "crystal ball" image is actually the Parker light sculpture, titled "Meaning of Radiance" by sculptor Bill Parker. Bills' works are in the permanent collection of several important museums in the U.S., including The Smithsonian Institution. A complex mixture of gases are sealed in a hand blown glass sphere. A unique program, written by Parker, instructs the "imager" to control the amplitude, strobe effect, frequency, and sweep of the waves in the mini-atmosphere. For more information contact: The Studio for Visual Technologies in Fine Art, 652 Glenbrook Rd., Stamford, CT 06906. (203)348-1574.

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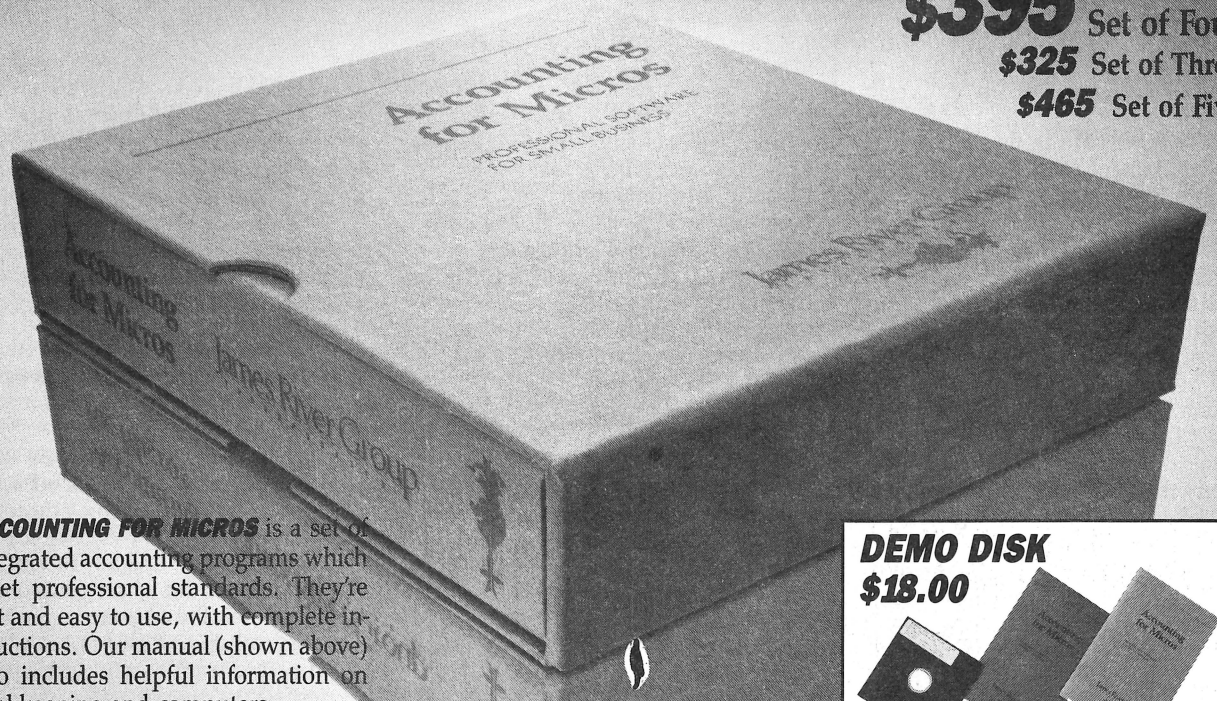

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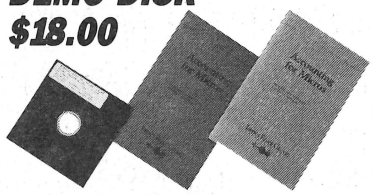

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Letters to the Editor

A LETTER TO RISING STAR

I am writing to inform you of my complete disappointment and disgust with Valdocs 2. The purported software "dream" we were all kept waiting so long for turned out to be a nightmare.

Rising Star recently published the outrageous claim that Valdocs 2 is "in general . . . about three to four times faster" than Valdocs 1 (Jeter, Jim, Interact '85, Q & A, The Rising Star, Vol. 2, No. 2, p.10, Col 3, second question from the bottom. July, 1985) This is a flat LIE. I am unable to discern any speed improvement whatsoever and, overall, VALDOCS 2 IS, IN FACT, MUCH SLOWER AND MUCH MORE CUMBERSOME THAN VALDOCS 1. The cursor may move over the screen marginally faster but scrolling through a file or any screen redefinition proves to be just as laborious and tedious a chore as ever. Things really begin to bog down after entering only a couple pages of text into the Valdocs 2 editor. Now the disks begin to grind incessantly and the cursor lags you fingers by at least ten keystrokes.

Miakl J. Aasved
Lompoc, CA

KUDOS FOR THE CONNECTION

I wanted to write to compliment you on the September issue. I have all the issues of the EpsonConnection and have always considered it an excellent publication for Epson computer users. The September issue really suited me perfectly. I was glad to see information on your bulletin board, especially the list of new programs, with brief descriptions of their purpose. I have found that, in using bulletin boards, one of the most frustrating parts is seeing all the cryptic program names, without any explanation of what they are used for. By the way, I use a Prometheus modem with Valdocs 2, and it works perfectly.

I also appreciated the tips on loading a spreadsheet into the Editor. By doing this I can fix up the spreadsheet using the graphics characters, really making it look nice.

I don't understand the attitude of the people who don't like the Epson, but to each his own, I guess. We have had our Epson for about two years and are quite satisfied using it for all sorts of applications from word processing to programming. On occasion the user does have to be willing to dig to get information, but that should not be considered a drawback.

Most Sincerely
Judy Sharp

THANK YOU RSI

It now seems that the biggest boon to QX-10 owners has been the separation of RSI from Epson. At least RSI people are knowledgeable and responsive.

I received the Valdocs 2 Fix disk from RSI's Jennifer Capp in August by sending a blank disk which was returned to me with the

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Continued from page 7

three programs and instructions. At the same time I should mention that RSI's extremely helpful Dave Warmoth upgraded me fully with current fixes in September for the cost of mailing back my three original Valdocs 2.0 disks...

Waldo Lydecker
Westhampton Beach
New York

FRUSTRATED OVER VALDOCS 2

I am writing this in anger and frustration over Valdocs 2.

First of all, let me say that I have used and loved Valdocs 1 since August 1983, as a consulting engineer who writes books and articles as well as keeping office records. I do not understand professional writers who complain about Valdocs 1, as did Lori Willis in your June/July issue of Stephen Morril in September (I can't believe a professional writer who needs a spelling checker!). I have written two technical books and numerous articles, as well as all my client letters and memoranda (with graphs) on Valdocs 1.

Valdocs 2 is a disaster. My Users Group lead me to recognize that the spreadsheet is either great or lousy (depending on what you want to do with it). I prefer Peachcalc. Why did we have to lose the calculator?

But worst of all is the EDIT function. I like the variable type size and love the superscript (for economic formulae) and subscript (for chemical formulae), but one can't revise effectively. Because of the use of the right-hand disk for storage, I have three times been hung up with a static cursor, without warning. My dealer got me out of this twice, "talking me down" from my trouble by phone.

Yesterday, I totally lost a valuable 15 page report, when I tried to revise three paragraphs (pp. 5, 7 and 9). All I can do now is retype laboriously on Valdocs 1 from my hard-copy.

Please see InfoWorld, August 5, 1985, page 42 re "Valdocs 2; Trouble in Paradise". As far as I'm concerned, I can't use it for technical writing, and it shouldn't be sold to customers who aspire to word processing.

C. P. Dillon
St. Albans, WV

EpConn UpNotes

by Allen Howell

Since the EpsonConnection now oversees EpsOnLine, the EpConn SOCIS BBS system is going to undergo a few changes effective Jan. 1, 1986. These changes include:

1) Downgrading the system from a 30M to a 10M hard drive.
2) Replacing all public domain software with the contents of our Disks-of-the-Month.

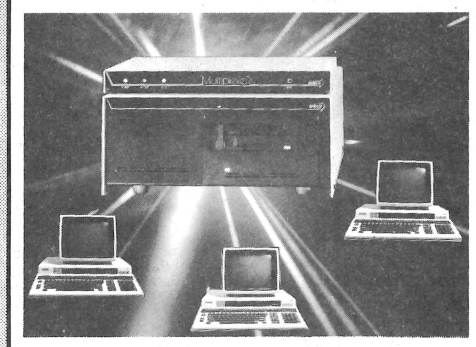
These changes are necessary to help decrease the time required to perform system maintenance so that we may spend more time building EpsOnLine.

By no means does this mean that we are abandoning our faithful callers, we will continue the same system software along with each specialized message base to help answer your questions.

Since our BBS will be moving from a "public domain program" emphases to more of a message based system, we encourage our callers to also utilize many of the other EpsonNet BBS's available around the country. Many of these systems are under-used, and the sysops would be glad to expand their 'regular' user base.

Continued on following page

The Bi-Tech Star Network



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Uploads:

User uploads will still be encouraged, however, these uploads will not be placed on the system immediately for downloading. Any uploaded material will be evaluated, and if we find it appropriate, will be placed on the EpsOnLine SIG on CompuServe, and be included on a future Disk-of-the-Month.

Here are the latest uploads to the system. Be sure to get what you want before Jan. 2!

New Public Domain Software / Updated Nov. 1, 1985

Al's Opinion Scale:
★ = Fair, ★★ = Good, ★★★ = Excellent, ★★★★ = Must Have, ??? = No comment

Filename	Rating	Size	Description
CHESS2.EXE	★★★★	10K	Chess game. Works fine with QXPC2. Uploaded by Al Silk.
WORLD3D.EXE	★★	48K	Shows the world from any angle in color. Uploaded by Al Silk.
FILEHAND.LBR	★★	63K	MS-DOS File Maintainance Utility. Uploaded by David Crotty.
ARC.EXE & DQC	★★★	44K	A library (.LBR) type utility for MS-DOS. Uploaded by Steve Hobbs.
QXCLOCK.LBR	★★	14K	Nice clock display for the QX-10. Uploaded by Al Silk.
ZX2.COM & DOC	???	15K	Sweep utility for the PX-8. Uploaded by Louis Bradley.
CHESS.BQS	★★	8K	Chess game program written in MBASIC.
HALLEY.LBR	★★	10K	Tracks the path & magnitude of Halley's Comet.
YESMAN.LBR	★	18K	Bizaar program for the warped mind.
ETHICS.BBS	★★★★	8K	Do's and Don'ts of BBS use.
EQUITY1.DOC	★★	9K	Some questions answered on the Epson's new IBM clone, the Equity. Uploaded by Mike Rehling.
BBS-LAW.DOC	★★★★	15K	Info concerning pending gov't laws concerning BBS Sysops and Users. DOWNLOAD!! Uploaded by John Hirsh.
EBASIC.LBR	★★	40K	BASIC programming language.
MBYE37.AQM	★★★	64K	Latest BYE program for CP/M. Supports 2400 baud modems.
ESCCODES.DOC	★★	16K	Listing of ESC code sequences available in CP/M B2.25. Uploaded by Ron Delpiere-Smith.
SDCOPY.LBR	★★	13K	Allows files to be copied on the same drive. This program keeps your computer in commission if your data drive crashes.
MRBILL.TXT	★★	15K	A short "show" that is displayed on your screen. To invoke (after download, of course), enter "PIP CON:=MRBILL.TXT".
CR103FIX.DOC	★★	4K	How to fix your CR-103 modem to work with V2 Mail. Uploaded by Mike Rehling.
BEWARE.MSG	★★	4K	Article on hacker foul play.
LBB22.LBR	★★★	20K	Little Black Book. Keeps track of names and address. Nice little program.
D3.DOS	★★	4K	Handy replacement for DIR in MS-DOS. Uploaded by Gene Carter.
DESKMATE.LQR	???	144K	A Sidekick like program for MS-DOS. Uploaded by Gene Carter.
VAL+.DOC	???	8K	Details on RSI's VALDOCS+ package. Uploaded by Steve Stecklow.

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DEALERS INQUIRIES INVITED

NewWord

by Mark Miller

SPEC SPOT

Product: NewWord
Type: Word processor with mailmerge.
Computer: QX-10
Operating System: CP/M
Required Peripherals: Printer
Price: 8-bit version, $100 / 16-bit version, $249
Ease of Use: Easy to use out of box if familiar with WordStar; otherwise, easy to learn.
Performance: Excellent
Documentation: Good
Summary: Similar to WordStar but with mailmerge capability. One consideration is the lack of screen brightness. Has an "undo" capability.
Manufacturer:
NewStar Software, Inc.
1601 Oak Park Blvd.
Pleasant Hill, CA 94523

NewStar has produced Yet Another Word Processor, NewWord (version 2.14), which is described as a WordStar-like program with enhancements.

If you are a WordStar user, you will have no trouble using NewWord. Most of the commands are identical, with some additions and some deletions. See the comparison of commands tables.

But, before describing the "enhancements" of NewWord, a few words on the problems of NewWord.

The copy I received was "installed" for the Epson QX-10. The QX-10's monitor emulates the Televideo 925/950. In order to allow the highlighting of characters marked for bold face type, NewWord, as received, initiates at half intensity, just like Valdocs. Unfortunately, just as with Valdocs, if you work with half intensity all day long in a brightly lit office, you will have, at the very least, a headache.

So the first place I went to was the installation program to get NewWord to come up in the monitor's high intensity. I do not care if strings to be printed as bold face are designated, as does WordStar, with ^Bs or by half intensity, but for serious work I need full intensity as the norm.

The patch was there, but if you do not know that hex 00 shuts full intensity off and FF turns it on, you will be in trouble. This manipulation did not slove my problems. Bold face was now defined with half intensity but, blocks would not define AT ALL. As anyone knows, block manipulation is one of the more powerful and useful functions of a word processor. A lack of block definition is not acceptable.

After several aborted attempts caused by communications problems not the fault of NewStar, a patch to solve the problem was promised. Unfortunately it was never delivered.

The documentation for NewWord is lengthy, and -- with the notable exception of a patch to make the blocks define at half intensity -- complete, as such a powerful program requires. It is written in a tutorial format called "NewWord Do-It-Yourself", with more detailed information contained in easy to read supplements, "NewWord Nuts & Bolts" and an "Encyclopedia".

However, as with all program documentation I have seen, it does not read like a comic book. Plan to spend some time with it, even though if you are a WordStar user (and are happy with NewWord's half intensity as distributed), you can use NewWord right out of the box.

Possibly the single most useful "enhancement" I found was the less dangerous way in which NewWord handles disk full problems. Those occur when the disk containing the document upon which you are working contains too little space for those temporary editing files used in the editing process. WordStar (version 3.0) has lost much of my work when the disk space was inadequate to allow for those temporary editing files, and the program locked up. No way out but to cold boot, and there goes everything in the TPA.

Try as hard as I might, I could not get NewWord to lock up on me when the disk space was inadequate. It simply, politely, kept telling me disk space was inadequate and to press the escape key (meaning the STOP key in this installation) to continue.

Another nice NewWord command is a page finding function. With it you do not have to do a ^Q^Q^C1 to get to page 50 of your 99 page document. Just a ^QP50 will take you to the top of page 50, or if moving backward through your document, the bottom of page 50.

Also, NewWord has a command to format the entire document, or any part thereof, depending on where you place the cursor to begin. ^QB in NewWord does what separate ^Bs at the beginning of each paragraph in WordStar does, but obviously more easily.

For some reason, possibly attributable to the fact that NewWord's authors had to totally structure its code so as to perform like WordStar but not faintly resemble WordStar's code, the find function is considerably slower. This is a heavily used function and may be of more than passing consideration to those comparing the two programs.

I also found the block writing function to be considerably slower, but this may be attributed to a verifying enhancement, although I doubt it, as such seems hardly necessary.

Another handy feature is NewWord's ability to "remember" what you last did, and if you so desire, to "correct" it.

For example, who has not deleted a line or word by mistake? Just issue the ^U command, and presto, there is that line or word you just deleted by accident, "recovered" by NewWord. It was actually stored for just this use in a special buffer.

Other command differences can be found in the comparison table and are basically self explanatory. And, if such is a consideration for your usage, NewWord does not allow the "printing" of a document to disk.

NewWord has a mail merging capability too. Would you have a WordStar-like program without mail merging? Time only permitted a brief examination of this capability, but it seemed to function, as does all of NewWord, much like that of

Continued on following page

Table I

COMMAND CODE DIFFERENCES
(By Different Commands)

NewWord	Command Description	WordStar
^KO	Copy Block	^KC
^PF	Phantom Character	^PG

Table II

COMMAND CODE DIFFERENCES
(By Same Command, Different Functions)

Command	WordStar	NewWord
^N	Hard Carriage Return	Paragraph Line
^QB	Move To Begin of Block	Align Document

Table III

UNIQUE NEWWORD COMMANDS

Command	Explanation
^OO	Put Ruler Line into Text
^QP	Find Page
^KI	Column Replace

Table IV

UNIQUE WORDSTAR COMMANDS

Command	Explanation
^K0-9	Set/Hide Place Markers 0-9
^KE	Rename File
^KF	File Directory On/Off
^KP	Print File
^OV	Variable Tabs On/Off
^Q0-9	Move Cursor to Marker 0-9
^QQ	Repeat Next Command
^QZ	Scroll Up Continuously
^QW	Scroll Down Continuously
^QK	Move to End of Block Marker

WordStar. By the way, anyone who has mastered mail merging has accomplished no small feat.

I essentially tested NewWord on some existing WordStar mail merging documents, and it worked well. Such compatibility was certainly NewStar's goal, and it exists. There were also no problems encountered in editing and printing when interchanging documents, created by either program.

Alas, NewWord, at present, although I imagine NewStar has such in mind (they HAVE reserved capability for proportional spacing, but proportional spacing is NOT presently supported), does not have internal capability to support a spelling checker. This may or may not be a consideration to a prospective buyer depending upon how poor a speller one may be. I survived for some time using an external spelling checker, but I certainly do like being able to call for a spelling check from within WordStar, without having to leave the word processing program.

There you have it. A review by a dyed-in-the-wool WordStar user. You must weigh for yourself what one program offers over the other. The two are so similar that price is a very real factor, and CP/M WordStar can be found at quite attractive prices. Yet, NewWord is as nearly compatible with your existing WordStar files, if you have any, as anything other than WordStar could be. ■

Disk of the Month

This month's disk contains 4 data management programs. KREEP is a menu driven, memory based data base management program that can contain up to 100 records per file; CREATOR actually creates data base management programs in MBASIC to your own specifications; DIMS is a command driven data base management program somewhat similar to dBase-II; SEEKEASY is a demo program that demonstrates the power of the commercial version, however the data base size is restricted to 3,200 characters in the demo version.

These public domain programs are provided on a quality diskette and the price includes shipping, postage, and handling. **To order the Disk of the Month**, please send a check or money order for $15 to the EpsonConnection, Disk Service Department, P.O. Box 14027, Detroit, MI 48214. Please be sure to indicate the disk order number (EC-16) with your payment.

If you have a modem, these programs are also available from the EpConn SOCIS BBS at 313-823-1425, 24-hours 7-days.

Disclaimer: All of the programs and documentation on this disk are known to be public domain and no warranties are expressed or implied. There are no guarantees with public domain software. All of the programs have been tested on the Epson QX-10, and are known to run. Public Domain programs are programs written by other users, for public use at little or no charge, other than that for handling, mailing and materials. **Note:** We imply no similarity, or advise any comparison, between public domain software and software that is commercially produced. A basic knowledge of CP/M and a library utility (LU3 or NULU) is also recommended to utilize this software.

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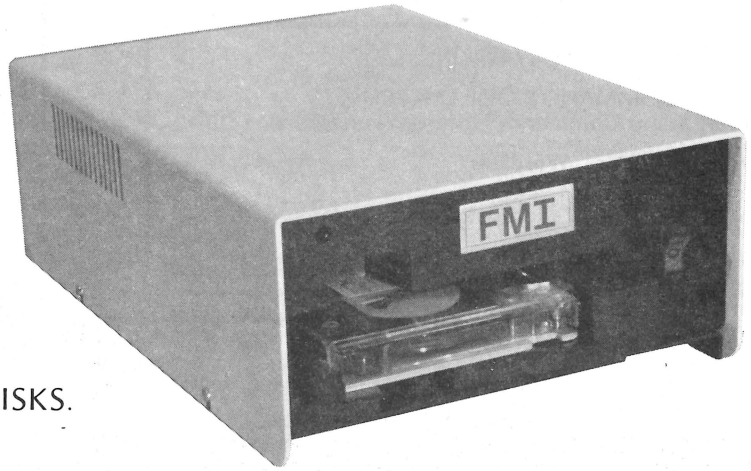

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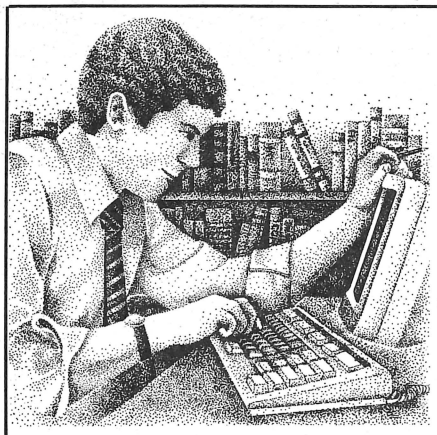

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Use as much of the power as you feel comfortable with. KAMAS is menu-driven with lots of on-line help screens. But you can also open the hood to find a high performance programming environment with the additional horsepower you may need to get the job done. An active user community and the KAMAS Report newsletter keep you in touch with the latest KAMAS applications.

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Home Money Manager

by Larry Hufty

SPEC SPOT

Product: Home Money Manager
Type: Checkbook and Home Budgeting
Computer: QX-10
Operating System: CP/M
Required Peripherals: Use with a printer is suggested
Price: $59.95
Ease of Use: Extremely easy; all menu driven
Performance: Very Good
Documentation: Well written, especially for the beginner
Summary: This is an excellent, inexpensive program for balancing and budgeting your checking account. Especially well suited for the beginning computerist.
Manufacturer:
Nickelodeon Software
P.O. Box 974
Tualatin, OR 97062

Every once and a while, someone decides to write a program that is both versatile and inexpensive. So it is with The Home Money Manager. And in this case, you get a superb Money Management program for your $59.95. But don't expect miracles, or fancy bells and whistles.

Home Money Manager is not an accounting program, but was designed to assist the chosen home money manager with detailed accounting of family finances. Since one of the major reasons for divorce in America centers around the dollar, what better way to work toward financial stability than to monitor the flow of funds. This is where the Home Money Manager comes into play. This system provides the user with up to 12 checkbooks or savings accounts and can handle 1000 checks per year. You may also handle 12 credit accounts (MasterCard, VISA, Sears etc.), and two cash accounts. One item I like is the ability to automatically set up dates for weekly, bi-weekly, or monthly budgets. So if you have a payment that is always due the first week of the month, you can set it once, and Home Money Manager will automatically budget that check for the entire year for the first week of the month.

QUALITY OF DOCUMENTATION

Home Money Manager (HMM) has a well written 75 page manual, designed to assist the beginning computer user. It does not try to fill your head with accounting jargon or give you a small course in business administration. The manual is straight forward and well written. The only drawback was the lack of an index or content page. A tutorial is not included, and is not needed due to the ease of using this program. Otherwise, a well written manual that rates an 8 on a scale of 10.

EASE OF SETUP

The manual provided does an excellent job of assisting you in the setup procedure. The setup menu is numbered in such a fashion that item number 1 in the menu is also the first item to set up. This continues throughout the setup procedure. The manual provides an excellent list of suggested expense categories (you can use up to 48), but offers a cumbersome method of layout. I recommend that the user first group expenses by headings and then input them. This will make data entry a lot faster later on. (see chart) For ease of setup, Home Money Manager gets an 8 out of 10.

COMPATIBILITY

Unfortunately, Home Money Manager lacks in the area of compatibility. The setup procedure does not discuss different types of printers, but relies upon the initial setup of CP/M for your printer selection. Also, Home Money Manager has no ability to format data for use in a Word Processing Program. Although this may not be an important need for this system, it must be remembered that this program is being rated against most others in the field. Consequently, I give it a 4 for compatibility.

EASE OF USE

This is where The Home Money Manager shines. It is without a doubt one of the easiest programs to use. The Home Money Manager provides

single line entry of checks, can split a transaction, and with a little work, you can tag items for Tax Deductions. This is possible due to Home Money Manager's superb sort routine, that enables you to pull out information in any of several different ways. All of the options are supplemented with superb help screens. Clearing items for bank reconciliation was also done with little to no effort. Setting up the budget was extremely easy to do. Each item listed as an expense can be budgeted if desired. This can prove invaluable to anyone in need of watching cash flow. Home Money Manager will conveniently provide the budgeted amounts throughout the year either bi-weekly, monthly, yearly, or as required by you. This is an extremely versatile module. All in all, Home Money Manager was designed to be extremely easy to use, and it accomplishes this superbly. For ease of use Home Money Manager is rated a 10.

SPEED

Despite the fact that Home Money Manager is written in MBASIC, it is extremely fast. The Author has managed to provide a program that is well written without being cumbersome. 10 checks and deposits were input in 5 minutes 13 seconds, and 20 checks were cleared for reconciliation in 2 minutes, 3 seconds. This can be speeded up by loading certain modules into the RAM, specifically: BUDGET.DAT, CASH.BAS, CHECK.BAS, CHECKS.DAT, DATADISK.BAS, MANAGER.BAS, MENU.BAS, MONEY.COM, REGISTER.DAT, AND START.BAS. This provides a little quicker response time, and since data must be on Drive:B, no loss of data can occur. For speed- 8 out of 10.

DATA ENTRY

Data entry is made extremely easy with the changing lists provided for you. When inputting the type of account, a list of all of your accounts will appear. When assigning a payee, you can have a pre-defined list of 18 payees that you use often. So instead of typing a lengthy payee name, a maximum of two key strokes will input any one of your 18 most used payees. It's the same with expense categories. All 48 will appear in front of you instantaneously. Once again, two key strokes will enter your expense categories. This is why being organized when setting up your expense ledger is so important. Why list different car expenses throughout the ledger, when you can group them together. Two concerns do come to mind. First, there are no provisions for transferring money between accounts. For instance, if you write a check for cash, why not provide for the checking account to be debited and the cash account to be credited. Another concern is that the author did not provide for cash expenditures to be added to the ongoing budgeting process. Consequently, if you cash a check, and then buy groceries with part of the cash, and list it as a cash expenditure, the Home Money Manager will not reflect this grocery purchase in your budget. Why go to the bother of setting up a budget if a good portion of your expenditures (cash) are not recorded? Although the system is not designed to accept cash expenditures being categorized, you can use one of the 12 Check Registers for your cash expenditures. The problem with this solution is that each check register is capable of handling only a certain number of transactions. If you use a check register for budgeting cash expenditures, that particular register will fill up quickly. For Data Entry Home Money Manager gets an 8.

VALUE OF PRINTOUTS

One of the most sought after features in any financial management system is its ability to provide hard copy reports. Many excellent systems have failed for this reason alone. About the only thing Home Money Manager does not provide for is the printing of checks. The author has done an excellent job of providing sort routines so that you can manipulate data in just about any way you desire. Reports can be generated to reflect your expenditures year to date, specific budget periods, a specific check register, and can even print out a list of those checks written to a particular payee. Or if you prefer, a printout can be obtained of all expenditures within a specific budget category or a listing of those checks which have not yet cleared the bank and are still outstanding. My only concern with the printouts is that the print module does not provide for page breaks when using continuous paper. Consequently, a long report has a somewhat awkward look. The only item that would have been nice is the ability to transfer files to a word processor. But then again, the Home Money Manager was designed to be a home management system. If you are looking for an accounting program, with graphics and wordprocessing capabilities, you want something more powerful (and much more expensive) than Home Money Manager. The Home Money Manager receives a 10 in this category.

STOCKCHIP

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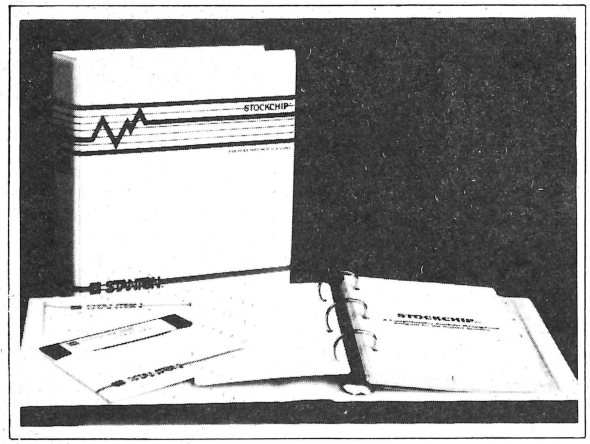

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Compatibility	4/10
Ease of Use	10/10
Speed	8/10
Data Entry	8/10
Value of Printouts	10/10
Versatility	7/10
Speciality Programs	5/10
OVERALL	**8/10**

VERSATILITY

If you are looking for an easy to use home budgeting program, then Home Money Manager is extremely versatile. It provides you with an easy to use home management system. Data entry is extremely easy, the program is relatively fast (except moving between modules, which does not happen during data entry), and provides you with an excellent report generator. The program is heavily menu driven, and can be learned quickly, even by the inexperienced computerist. If you want anything else from the program, such as check printing, graphics, etc., you will find it lacking. But then again, you're paying $59.95 for Home Money Manager. I rated this a 7.

SPECIALTY PROGRAMS

The Home Money Manager provides superb printed reports, but that is it. Within the context of specialty programs, two are provided, but at an added price. For an extra $20 (79.95),you can purchase the Home Manager, which provides you with three programs: Home Money Manager, Home Insurance, and Home Loan. Home Insurance will assist you in the inventory of your belongings and Home Loan will assist you in determining if you can afford to buy that new house, car etc.... A rating of 5 is assigned.

OVERALL

The overall value of Home Money Manager is determined by what you need. If you need a program that provides check printing, graphs, bells and whistles, then you do not want this program. But if you want a program that gives you superb Home Money management without a lot of complicated accounting theories to learn, and at an affordable price, then this is the program you've been looking for. Because Home Money Manager does exactly what it set out to do, I give it an Overall rating of 8.

CONCLUSION

Comparing Home Money Manager with two other home management programs I reviewed previously provides the following:

MINI-LEDGER 86
HOME MONEY MANAGER . . . 76
HOME ACCOUNTANT PLUS . . 50

Obviously a high score for such an inexpensive program. But then again, look at what Home Money Manager provides you with. An excellent program, full of well written menus and help screens. This program can be learned in minimum time, and if ever there is a question, a simple question mark entered at a prompt will provide the user with a superb help screen. With other programs of this type the user must remember numerous codes etc. in which the expense categories are listed. With Home Money Manager the listing appears each and every time you are about to enter an expense category. This can be a real time saver, and alleviates a high level of frustration when more than one person is inputting the expenses.

Next in importance to a good report generator is support. Nickelodeon's Home Money Manager author, Steve Hudgik, is more than happy to talk to anyone who calls for assistance (should you need any). And if you have an idea to make this program better, once again, give Steve a call. He is extremely receptive to suggestions. For the first year, Nickelodeon will send any fixes to registered owners free.

In addition to being able to keep a tight control on your expenses, Home Money Manager will provide you with added bonuses. April 15 is quickly coming, and you need to recall what items are tax deductable. If you have entered a description with a code word such as TAX in the description field, a simple sort to print out all items with "tax" in the description will provide you with an excellent listing. A longer term tax item would be tax deductable "home improvements." With a separate account set up specifically for this purpose, used over the life of your home, will provide you with an excellent listing of those expenses.

The Home Money Manager is an easy to use and versatile home financial system. With the low cost and superb support from Nickelodeon, it is doubtful you will find a better deal anywhere. If you are in the market for a home financial program, it is highly recommended that you consider Home Money Manager. ■

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CP/M - DRI; MS-DOS - MicroSoft; WordStar - MicroPro; QX10, QX16, PX8 - Epson; DAC - DAC Software Inc.; dBase II, dBase III - Ashton-Tate

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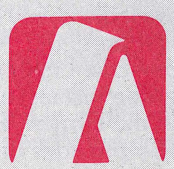

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Champion

Business Accounting Software

by Jerry E. Howell

SPEC SPOT

Program Name: Champion Business Accounting Software
Type: Modular, fully integrated.
Computer: Epson QX-10, QX-16 (also available for other CP/M and MS-DOS computers)
Operating System: CP/M, CP/M-86, MS-DOS, and PC-DOS single user systems.
Language: Compiled dBASE-II, comes with special run-time-only version of dBASE-II.
Modules Available: General Ledger, Accounts Receivable/Order Entry, Accounts Payable/Purchase Order, Inventory, and Payroll
Price: $295.00 per module
Ease of Use: Very good
Performance: Excellent. A superb system that has many special features.
Users: Business users from small to large.
Summary: This package is superior to most others costing several times as much per module.
Distributor:
Champion Software Corporation
17301 W. Colfax Ave. #250
Golden, Colorado 80401
(303) 278-8666

Choosing computer accounting software that not only includes the functions you need but, also is easy to use can be a very trying ordeal. Many of these programs are good and reliable; unfortunately, there are also many that will prove wanting in actual use.

The Champion Business Accounting system is one of the best to be found anywhere. It is easy to use because it is menu driven and because it utilizes the same bookkeeping principles most businesses are accustomed to using with their manual ledger accounting system. There are five modules in the complete system, any one of which can be a stand alone unit. The five modules are: General Ledger/General Journal, Accounts Receivable/Order Entry, Accounts Payable/Purchase Order, Inventory, and Payroll. Any module may be purchased separately and run as a stand-alone unit. If two or more modules are utilized, one of them must be the General Ledger. A user can start with only the modules needed, and add other modules as required. Champion is written in compiled dBase-II and is supplied with a special "run-time-only" version of dBASE-II. Users do not have to own dBASE-II to run Champion.

Special Features Included:

- A complete, full-function accounting system on just one disk. All five modules (GL, AR, AP, IN and PR) fit on one 5-1/4 inch floppy disk in under 320K, thereby eliminating the frustration and time lost in swapping disks.
- True integration gives real-time updating. All files are simultaneously updated when data is entered. No sorting or batching of data is necessary and all financial information is always current, including the last transaction.
- A recover program that really works, automatically puts the users books back in balance in the event of a crash.
- User-definable report codes can be used throughout the system.
- A system-wide help function is available at any data input point. Just press the "?" key and an on-screen help window appears giving instant information pertaining to the current data entry point and also provides the exact page number in the manual for more detailed assistance.
- A "bullet-proof" audit trail allows the tracing of any transaction; including changes, corrections, deletions and reversal of entries.
- A security code limits access to authorized personnel only.

General

Being a fully integrated system, Champion automatically updates all files, throughout the installed modules, effected by any transaction. It is easy to make corrections or deletions resulting from real-life situations, and all reversals or deletions leave an audit trail which is an essential ingredient for proper accounting control. It is very difficult to accidentally enter the wrong account, customer, vendor, inventory item, employee, etc. as Champion always displays the description of that number for your verification.

Champion's report generator takes advantage of the data base. At most entry points the user may enter a user-defined code that can be used later to find out things like "how many T6 widgets were sold by salesman X in territory Y". All reports, ledgers, journals, etc., in the entire Champion system can be output to either the printer or the screen and all reports can be printed in the standard size print mode with an 80 column printer.

The Champion Help File is in two segments. If both of them are utilized, the user has full help as is sometimes needed with a new package. One Help File is 6K in size and gives the page number in the manual for more help. The second Help File is 94K in size and is the one with detailed help. If data disk space becomes a problem, the detailed

Help File can be removed, leaving the page help on-line. Of course both of these may be removed at any time.

Installation

Champion is easier to install than most accounting programs. No shortcuts were taken with this part of the owners manual and installation for floppy and hard disk systems is well covered, step-by-step. An additional program called "Easy Up" prompts the user as to the number of customers, vendors, invoices, checks, employees, etc., you will have each month. Easy-Up then calculates how many months of activity you can expect to store on a floppy data disk based on your disk capacity, and how many disks will be required for an entire year, including year end. It also gives the percentage of available space that will be needed with differently sized hard disks. If you are not using all five modules, just ignore the questions for the modules you are not using.

General Ledger

The General Ledger comes with a comprehensive sample chart of accounts. This can be easily customized for any situation and is the easiest way to get started for most users. The user who is well versed in accounting may want to build a chart of accounts from scratch. Account numbers may be up to ten digits in length and reflect departments, categories, types, etc. The Champion accounts may be of several types including: a title account, descriptive account, a balance account, or a totaling account (used to accumulate information for financial statements).

The appearance of the financial statement is determined to a large extent by how the chart of accounts is constructed. General ledger reports include: financial statements (with or without schedule), trial balance, and income statement.

This module maintains the Cash Disbursements Journal, Detailed General Ledger Transactions, General Ledger Activity by Code, Trial Balance Worksheet, Financial Statements, Schedules to Financial Statements and others.

The Recover program is a part of the GL module which also operates on all other modules. There are other programs that include a recover feature, but this one really works. Should the system crash, for whatever reason, the recover feature will restore and cross check all the files automatically. The larger the data files, the longer it will take (could be hours), but better the system do it than the user! In some instances a few of the last entries may be lost, but this will be noted.

Accounts Receivable/Order Entry

The Accounts Receivable system is designed to accommodate most business applications. It maintains the Customer Lists, Customer Ledgers, and Sales Journals. It also provides Sales Analysis Reports, Accounts Receivable Ageing, Open Orders, Invoices, and Statements. Nine levels of customer discounts are user-defined. A point-of-sale invoicing feature provides a running cash drawer balance and a perpetual inventory record. Multiple sales and cash receipts accounts and 62 sales tax codes are also included.

Accounts Payable/Purchase Order

This module maintains the Vendor List, Accounts Payable Journal, Vendor Ledgers, and Purchase Order Register. It also maintains an Accounts Payable Ageing Report, provides a Prepayment Edit List, prints vendor checks and other functions. Upon entering a vendor invoice, all affected inventory balances and costs are updated. During the entry of account numbers or inventory item numbers, Champion checks to see if it is a valid number, you will be informed if it is not. The system allows partial payment of invoices and takes discounts if payment is made within discount date.

Inventory

The inventory module maintains the Inventory Master List, Inventory History, Inventory Planning Report, Inventory Adjustments Journal, and a Reorder Report. This module was designed for retail or wholesale sales and would not be an ideal module for a manufacturer. When entering new items in to the inventory, the user establishes the selling price, unit of measure, reorder point, maximum number to stock, days for delivery, and vendor number. Item cost and units on hand may only be changed by inventory journal entry. A discount function allows users to establish up to seven discount levels per item. This can be used in conjunction with the customer discounts in the Accounts Receivable module.

Payroll

The Payroll module produces payroll for all 50 states. It can handle weekly, bi-weekly, and monthly pay intervals in conjunction with salary and hourly pay at regular, overtime, and double-time. Earnings can be taxed in many different ways. There are 14 adjustments such as vacation pay, sick pay, local taxes and others, 5 of the 14 are user-definable. Federal forms 940, 941, and W-2 are automatically prepared in addition to state unemployment and employee pay history. A prepayment edit list is provided before payroll checks are printed, and a company payroll summary is available.

Summary

Champion Business Accounting is not a brand new product that hasn't been proven in the real world. It is several years old and is highly refined. There have been a few major updates in the last two years that have added polish and program improvements. Until recently, the price was $495.00 per module and it was very competitively priced. The current $295.00 price per module has to be an accounting bargain considering it is a superior product.

An optional accessory program makes the system even more powerful and flexible than ever. Freeway is a program that permits transferring Champion files directly to spreadsheets such as Lotus 1-2-3, Symphony, and Framework. Freeway also increases the range of reports that Champion can produce. Freeway costs $249.00.

The DOS version of Champion is exactly the same as the CP/M versions and Epson QX-10 owners will be glad to know that the CP/M version runs just as fast on the QX-10 as the DOS version does on an IBM-PC. This is not necessarily true on other CP/M machines.

The only note worthy complaint is not against the program. Champion Software Corp. charges $60.00 per hour for customer support. They are not the only company doing this, and actually, the big price reduction would buy lots of support time! Champion has extensive cross-checks built into the entire system; and if the user makes sure the installation is correct and faithfully makes backup copies, he will probably never need Champion's support anyway.

Since there is simply no way to cover all the features and aspects of a program of this size in a review article, I strongly encourage you to check this one out before you buy any other accounting program; I think you'll like it. ■

Jerry Howell is the owner of Howell's Computer Center in Greenville, Ohio where he deals almost exclusively in Epson products. Jerry also is interested in astronomy, electronics, firearms, lathe operating, and model railroading.

EQUITY COMPATIBILITY LISTING

by Bill Howey, Epson America

This is a list of all software and hardware which has been tested on all models of the Epson Equity computer as of this printing. This listing also reflects that software which has failed certification for one reason or another. Very little software has been tested on Equity II and III. If either of these computers do not show up for a particular software listing it is only because the software has not been tested on that machine yet.
Functions tested: Monochrome, Color, floppy disk, hard disk, port access, function keys, minimun/maximum memory (640K), internal external modem, printer access, High/Low speed (Equity II).

TITLE	VERSION	Manufacturer	COMPUTERNOTES
ACCOUNTING			
DAC Easy Acctng	1	DAC Software	I-II-III Passed
TAX Advantage	1984	Arrays Inc.	I-II-III Passed
BPI AURA	1.1	BPI Acctng	I-II-III Appears OK
BPI General Acctng	C.13	BPI Acctng	I-II-III MONO (1)
BPI JOB COST	1.10	BPI Acctng	I-II-III FAILED (2)
General Ledger	N/A	Attache'	I-II-III Passed (3)
Acct Partner II	1.10M	Star Software	III Passed
COMMUNICATIONS			
Crosstalk	3.4	Microstuf	I Passed
PC-Talk 3	5.00C	Public Domain	I Passed
SmartComm II	2.1	Hayes Microcomputing	I Passed
Transend PC Complete	2.01	Transend Corp.	I-II-III Passed
Relay Gold	1.0	VM Pers Computing	I III Passed
DESKTOP MANAGER			
Sidekick	1.5	Borland Int	I-II-III Passed
The Desk Organizer	2.0	Conceptual Inst Co.	I Passed
Desq View	1.0	QuarterDeck	I III Passed
DATA BASE			
Revelation	N/A	Cosmos	I III Passed
dBase II	2.43*	Ashton Tate	I Passed
dBase III	1.1	Ashton Tate	I Passed
PFS File	1.0	Software Publishing	I Passed
" "	"	" "	II-III FAILED
Cornerstone		InfoCom	I III Passed
Framework II	Pre-rel	Ashton Tate	I-II-III Passed
R:Base 5000	1.0	Microrim Inc	I-II-III Passed
Revelation	N/A	Cosmos	I-II-III Passed
Cornerstone	5.6	Infocom	I III Passed
ENTERTAINMENT			
Flight Simulator	2.12	Microsoft	I-II Passed
Gato	N/A	Spectrum Holyobyte	I-II-III Passed
Kings Quest	N/A	Sierra	I-II-III Passed
Murder by the Dozen	N/A	CBS	I-II Passed
FAX	N/A	Epyx	I-II-III Passed
Jet	N/A	subLOGIC	I-II-III Passed
Temple of Apshai	N/A	Epyx	I-II Passed
Crush Crumble & Chomp		Epyx	I-II Passed
SARGON III	N/A	Hayden	I Passed
" "	"	"	II-III Failed
Golf's Best	N/A	1step	I-II-III Passed
Galactic Gladiators	N/A	RapidFire	I-II-III Failed
Load Runner	N/A	Broderbund	I Passed
"	"	"	II-III Failed
Tigers in the Snow	N/A	SSI	I-II-III Passed
Kings Quest	N/A	SSI	I-II-III Passed
Trivia Fever	N/A	Professional Sftware	I-II-III Passed
Oil Barons	N/A	Epyx	I III Passed
Wizardry	N/A	Sir-Tech	I Passed
FINANCIAL			
Stockpak II	1985	Standard & Poor's	I Passed
Dollars and Sense	2.0	Monogram	I III Passed
Financial Management	N/A	Longman Crown	I-II-III Passed

TITLE	VERSION	Manufacturer	COMPUTERNOTES
GRAPHICS			
AutoCad	2.17B	AutoDesk	I III Passed
Photobase	N/A	Chorus Data Sys	I Passed
PFS Graph	1.0	Software Publishing	I-II-III Passed
INTEGRATED			
Enable	1.1	The Software Gp	I Passed
Framework II	Pre-rel	Ashton Tate	I Passed
The Smart System	Na	Innovative Software	II Passed
Lotus 1-2-3	Rel 2	Lotus Development	I-II-III Passed
LANGUAGES			
Turbo Pascal	3.01A	Borland Int	I Passed
PROJECT MANAGEMENT			
SuperProject	1.10	Sorcim/IUS	I Passed
QwikNet	2.0	PSDI	I Passed
Harvard Total Project Manager	1.0	Harvard Software	I Passed
SYSTEMS			
CPM/86	11/83	Digital Research	I Passed
UTILITY			
The Norton Utilities	3.0	Peter Norton	I-II-III Passed
Flash Code	1.01	Software Bottling	I-II Passed
Xeno-Copy Plus	3.0	Vertex Systems	I Passed
Xeno Disk	1.4	Vertex Systems	I Passed
WORD PROCESSING			
Bank Street Writer	1983	Broderbund	I-II Passed
Display Write 3	1.0	IBM	I-II Passed
Easy	1.0	MicroPro	I-II-III Passed
MultiMate	3.32	MultiMate Int	I Passed
MultiMate Advantage	3.50	MultiMate Int	I-II Passed
New Word	2.15	Newstar	I III Passed
Vspell	1.06	Compuview	I Passed
Wordstar	3.30	MicroPro	I Passed
Wordstar 2000+	1.01	MicroPro	I Passed
VolksWriter Deluxe	2.2	Lifetree	I Passed
Samna Word III	3.0	Samna Corp	III Passed
PFS Write	1.0	Software Publishing	I-II-III Passed
PFS Report	1.0	Software Publishing	I-II-III Passed

NOTES

BPI appears to run satisfactorly. Our only question is due to the failure of the General Accounting Package included with this program to properly support color. Due to this problem we wonder what else we may have missed in testing this product.

1. Color setup is ok, however the cursor appears to assume the background color.
2. This is considered a pass because it fails on the IBM also. Please see notes in the IBM DOS 2.0 manual page D-2 for further explanations.
3. We are told by Attache that all other modules in the Accounting system are identical to the GENERAL LEDGER package tested here.

Software Critics Agree

SmartKey II Plus dramatically speeds up and improves accuracy in computing by letting you reduce multiple keystrokes to the touch of a single key. Thousands of practical applications. Available for both CP/M and MSDOS computers. Works to speed up your computing even while operating other software.

NEW!

SmartKey II Plus Combo Pak $49

—includes SmartPrint II Plus and Screen Smarts

Teach SmartKey to recall software commands, words, paragraphs, or entire pages of data at the touch of a key. Make a series of "smartkeys" out of most of the keys on your Epson. Store "smartkey" definitions in a special file. Call them up whenever you want to run a favorite program or work on a project. Imagine saving complex software command codes, boilerplate paragraphs, inventory numbers, or whatever, and then injecting any of them into your work with the stroke of a key. SmartKey will not interfere with the regular operation of your keyboard. Indeed, SmartKey enhances your keyboard.

The Critics on SmartKey

- "Excellent..." *InfoWorld*
- "Works like a charm..." *MicroSystems*
- "A must for every computer..." Peter McWilliams, author *The Word Processing Book*
- "SmartKey is a utility I recommend... ...The result is less frustration and greater speed and accuracy in entering data." John D. Yoder, PhD *Reviewer — Epson Connection*
- "...SmartKey is considerably easier to learn ...SmartKey would be my choice..." Bob Hermann *Reviewer — Epson Connection*

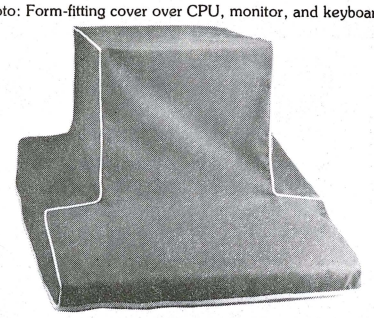
Central's super priced **$49** *SmartKey II* combo pak includes *SmartPrint II Plus*, a program that greatly enhances the operation of dot matrix printers, and a free copy of Paul Golding's $15.95 book, *Screen Smarts, The Computer Tamer's Guide*. This book tells how you can use SmartKey to turn your computer into a supercharged mean machine. Order today to get this hard hitting $115 software & book combo for only $49.

Perfect Epson Stand

Simple, strong, sturdy, safe. These words describe an attractive stand that provides a perfect spot to place your Epson computer and monitor on. This stand is made from rounded, steel rods covered with a thick, shiny, soft, black polymer material that protects your Epson and table top from scratches. Unlike flat wood or acrylic panels used in other stands, the tough supporting rods of the Smart Stand (TM) do not obstruct air flow. Since your Epson is lifted off the table top and fully supported by this stand, air flows freely all around your computer to help keep it cool. When you need more space, simply slide the keyboard completely under the stand to create a working area on your desk. The Epson Smart Stand is a super value at $26.95. Try it for 15 days risk free. If not completely satisfied, return it for full refund. Matching 80 or 132 column printer stands are only $21.95. Order today. Get it fast.

Introducing A Classic Form Fitting Epson Cover

Photo: Form-fitting cover over CPU, monitor, and keyboard.



At last, the classic Epson dust cover you'll be proud to own and use. This first rate computer cover is made from a premium, lint free, static free, washable, free breathing, and fade resistant sailcloth. It comes in a rich looking Navy blue or Sand. The Navy cover has a smart contrasting silver gray piping and trim that adds a superior finished look. Not to be outdone, the Sand cover is handsomely finished in a rich chocolate piping and trim.

Matching sailcloth covers for all Epson and ComRiter printers: $15.95. Please indicate make and model of printer.
New. Special 2-piece QX-10 cover: $21.95 per set.

For a limited time only, your price for this factory direct, custom made, one-piece sailcloth Quality Cover is $18.95. When ordering remember to indicate color preference. This special low price is subject to change. You must be completely satisfied with your purchase of this cover or we will refund your money immediately. Order today.

- Quality tailoring
- Easy care fabrics
- Attractive colors
- Professional appeal

Richly tailored inside and out. Look inside any of our Quality Covers; see the ultimate finishing; we use machines that sew with 3 needles so that edges will not unravel or shed lint. We stress perfection because you deserve the best. Compare for long-lasting satisfaction.

FACTORY DIRECT

Letter Quality

Say goodbye to correspondence qual
high-resolution, proportionally spa
Font provides fonts in sizes from
Roman, Bold, Italic, Script, Old En
low-cost Epson (MX, RX, FX) and
Font is an easy-to-use software pa
compatible systems; no special hardv

Actual sample produced by an MX-80 and Fancy Font.

Incredible Printing Machine

Your Epson printer is going to get even better. *Fancy Font* can make it into an incredible printing machine. The *Fancy Font System* is a software program that turns the bits and bytes generated by your computer into over 30 font sets in sizes from 8 to 40 points that can be printed on any Epson MX80 with Graftrax, Epson FX or RX printer, or Gemini 10X printer.

Fancy Font styles include Roman, Bold, Italic, Script, Old English, and more. In addition, custom forms, invoices, labels, signs, foreign languages, mathematical notations, view graphs, resumes, newsletters, brochures, complete manuals, invitations, place cards, and high-resolution, proportionally spaced, letter quality business and personal letters can all be printed on your Epson printer with *Fancy Font* at the helm. *Fancy Font* is a product of SoftCraft Inc. You may have seen SoftCraft's national ads. They are printed with *Fancy Font* on an Epson printer. The ad is powerful visual medicine. The list price for the fully documented *Fancy Font System 2.0* is $180. Central's price is only $149. Order *Fancy Font* today and add an amazing sparkle of creativity to all your printed materials. Please indicate name and model of your printer when ordering. *Fancy Font* will make your Epson printer and Valdocs or CP/M word processor come alive. It's magical.

MORE ON NEXT PAGE

Software in Review

MTBasic. Basic compiler. Write and compile in basic that allows you to program windows. Do multi-processing. All this on your CP/M Epson. Rave reviews. Low Price. $47.

Decision Analyst. Helps you make decisions where from 2 to 12 alternatives exist. Can save a business or build one. Professional printed reports. Powerful helper. Use it to make difficult career decisions too. Decision Analyst makes complex decision making easier. Consultants charge hefty fees for doing what this program does automatically. Comes with complete manual and tutorial. $139.

DateStamper. Date and time stamp all your CP/M files. You'll know exactly when you last worked a file. Keeps the confusion down. Helps to organize your record keeping. DateStamper can help you prove to the IRS that you use your computer in business. $44.

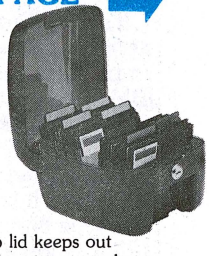
Reading Professor. Speed reading teacher. Teaches you to chop through text. Read at a glance and retain more too. Tested & proven effective. Great teacher. $57.

Word Finder. Puts 90,000 synonyms at your fingertips. Works from within WordStar. So, easy and helpful it's amazing. Imagine writing feverishly. Place your cursor on a word in your letter that you want a synonym for. Hit the escape key twice. A list of synonyms instantly appears along top of screen. Place the cursor on the word you want to see in your file. Hit the return key. The word in top of the screen automatically replaces the word in your file automatically. Right before your eyes. Incredible. Priced right too. $69.

FileBase. Easy to use database manager. Keeps records or makes mailings a snap. Sort and do all kinds of things to mailmerge records. Makes WordStar and Mailmerge a pleasure to use. Don't use Mailmerge without it. $99.

SmartBrain. The easy to use CP/M outliner and idea processor. Super tool for all writers. $69.

Lockable Diskette Defender



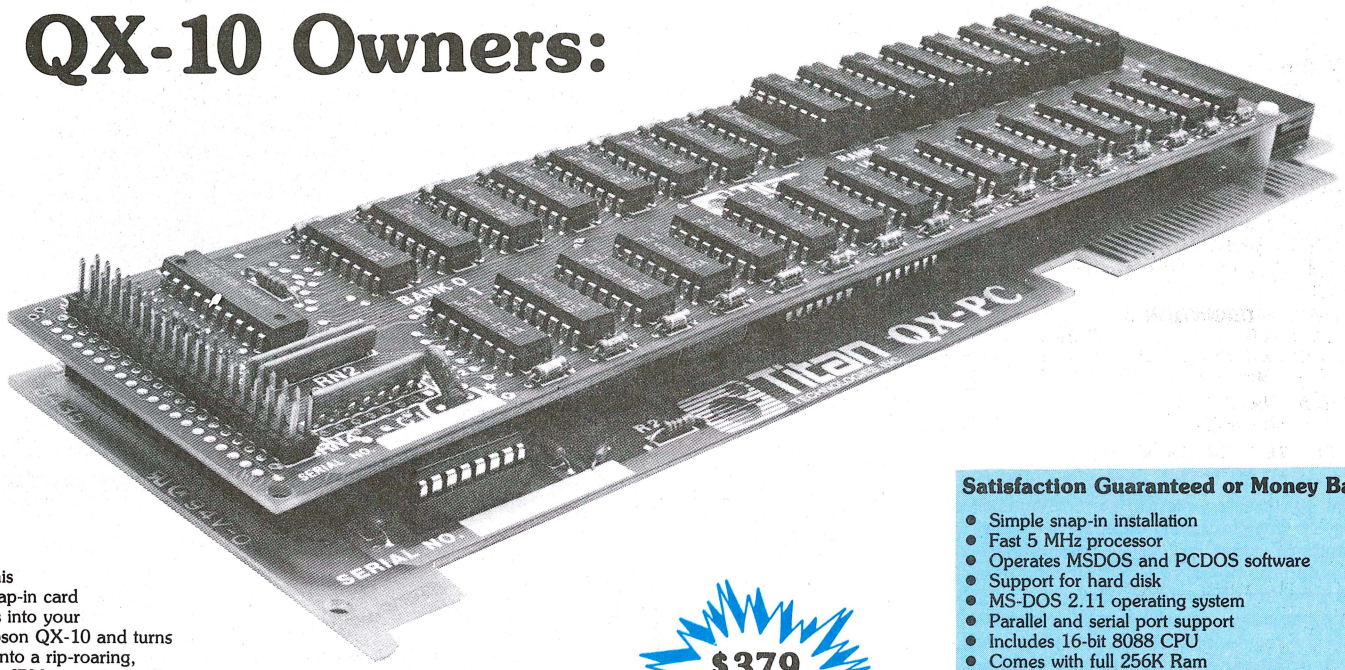
Handsome, sturdy, smoke-tinted acrylic tray holds 70 Epson-size diskettes. Flip-up lid keeps out dust, debris, and moisture, and locks securely to guard your important work. Comes with 7 dividers with index tabs for easy filing and to keep floppies upright to prevent bending, warping, and scratching. Tough and secure metal lock never comes in contact with diskettes because it is enclosed in a special plastic housing. Super value at $22.95 for one, or $21.00 each if you buy 2 or more. Keep prying eyes and sticky fingers away from your data. Order today.

LQ 1500 Users

Compare and save. Epson's LQ 1500 ribbon gives you 3,000,000 characters. Our top quality LQ 1500 ribbon produces 4,500,000 characters. Epson's list price is $17.50 per ribbon. Our price is $49 for box of six ribbons. In stock. Order today. Complete Satisfaction Guaranteed.

Check Your MailBox — Central's Free 64 Page Catalog is Coming Next Month

QX-10 Owners:



This snap-in card fits into your Epson QX-10 and turns it into a rip-roaring, fast IBM-type computer.

Satisfaction Guaranteed or Money Back

- Simple snap-in installation
- Fast 5 MHz processor
- Operates MSDOS and PCDOS software
- Support for hard disk
- MS-DOS 2.11 operating system
- Parallel and serial port support
- Includes 16-bit 8088 CPU
- Comes with full 256K Ram
- Expandable to 512K with auxiliary unit
- Includes complete operating manual
- Complete 12 month Titan-factory warranty
- All units fully supported by Titan

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256K

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To Order Call
Central Computer Products
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800-533-8049 USA
800-624-5628 CA

Last Chance for IBM PC Compatibility

Production of the QX-PC2 Has Stopped Forever

It's true. Titan Technologies, Inc. has stopped making the QX-PC2, the popular co-processor board that gives your QX-10 IBM PC compatibility at a fraction of the cost of an IBM machine. That's it. No more QX-PC2 boards will be made. This is your last chance to get this powerful co-processor. It lets you run super popular IBM-type business programs like Lotus 123, Symphony, dBase III, Harvard Total Project, WordStar, Framework, and thousands of other IBM-type programs.

Slip An IBM PC Into Your Epson

Putting the QX-PC2 co-processor board into your computer is like slipping a brand new IBM PC into your machine. The difference is you save big bucks. The QX-PC2 co-processor give you IBM PC compatibility at less than one-fifth the price of an IBM PC. That means you can buy the QX-PC2 co-processor, take the family out to dinner, and put money in the bank too.

You gain a lot. The QX-PC2 co-processor lets you use tons of IBM PC software including the powerful business applications that many professionals use. And best of all, you don't lose a thing. You can still use Valdocs and your CP/M programs too. Like thousands of satisfied QX-PC2 users, George Malpass, a fellow *Connection* subscriber reports, "I hardly ever use anything else....I use...Lotus 123, dBase III, SuperProject, and PC-Write....I haven't found anything that it doesn't run." By the way, PC-Write is an IBM-type public domain "shareware" program. George says, "I got it free....It leaves Valdocs in the dust." Get your QX-PC2 fast!

Hurry. To avoid disappointment, order a fresh packed, factory sealed Titan QX-PC2 co-processor today. It comes with a full one year warranty. You don't have to worry about service or support. If something goes wrong, Titan will fix it free. Price is right too.

There's nothing like the QX-PC2. It's gotten rave reviews in *Epson Connection* and other publications. Thousands of Epson users are running IBM-type software on this "computer" that fits right into your QX-10. The time is right to start experiencing 16-bit IBM-type computing. In fact, after current stocks are sold out, your chance to get the QX-PC2 is gone forever.

QX-PC2 Owners, Look at This

If you already own a Titan QX-PC2, you're not forgotten in Central's holiday season special. Until January 31, 1986 you can get a 256K second auxiliary memory board for half price. And that's not all! If you order by January 31, we'll throw in the Titan Ram Disk Software, and Titan Print Spooler Software at no extra charge. Recently, *Epson Connection* magazine reviewed these Titan software tools and called them "excellent". The ram disk and print spooler software are regularly $39 each. But if you order by January 31, Central Computer will give you this $78 value absolutely free. That's right, free. You pay nothing. Incredible value.

Quantities Are Limited, So Hurry

Please order today. Pick up the phone, ask Central to reserve your QX-PC2 or 256K auxiliary board now. Remember, Titan Technologies has stopped production. When current inventory is sold out, this product will not be available anywhere. Don't spend thousands of dollars on an IBM-type computer in a fast-changing market when you can get one on a card, plug it into your Epson QX-10, and get identical results. Order today to get the QX-PC2 board fast. In stock, ready for immediate shipment. Last chance. Order today.

QX-PC2 HOLIDAY SEASON PRICING

Description	List	Central
256K QXPC2	$670.00	$379.00†
512K QXPC2	$995.00	$549.00‡
256K Aux	$399.00	$199.00‡
Ram Disk Software	$ 39.00	$ 36.00
Printer Buffer Software	$ 39.00	$ 36.00

† Order the 256K QX-PC2 before January 31, and receive your choice of **either** the Printer Buffer or Ram Disk Software free. Please specify choice.

‡ Order the 512K QX-PC2 board or the 256K Ram Aux board before January 31, and receive **both** the Ram Disk and Printer Buffer Software free.
— All units include full 12 month factory warranty.

Attention: This is your last chance to own this fine product. These prices are holiday prices, and are subject to change. Quantities limited. Orders filled on a first come, first served basis. To avoid disappointment, please order immediately. Thank you.

Titan is a registered trademark of Titan Technologies, Inc.
QX-PC is a trademark of Titan Technologies, Inc.

Toll Free Order Desk
800-533-8049 USA
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Check Your MailBox — Central's Free 64 Page Catalog is Coming Next Month

CP/M Prod. Description		List	Central
QX-10 Software			
ASHTON TATE			
dBase II		$495.00	$329.00
ATI TRAINING DISKS			
CP/M		$ 39.95	$ 33.00
MBasic	**Training software.**	$ 39.95	$ 33.00
Multiplan	**Speeds learning.**	$ 75.00	$ 54.00
SuperCalc	**Gives fast results.**	$ 75.00	$ 54.00
Wordstar		$ 75.00	$ 54.00
BORLAND INTERNATIONAL			
Turbo Pascal 3.0		$ 69.95	$ 58.00
Turbo Toolbox, Software Tools		$ 54.95	$ 44.00
Turbo Tutor, Step by Step		$ 34.95	$ 32.00
CDE SOFTWARE			
Checks & Balances 3.4		$ 74.95	$ 64.00
CHUCK ATKINSON PROGRAMS			
Quick Check Plus AR		$195.00	$155.00
CONSULTANT SYSTEMS			
The Real Estate Consultant with The Creative Loan Consultant		$399.00	$349.00
Don't buy or sell property without this software			
DIGITAL MARKETING/PRO TEM			
Bibliography		$ 99.00	$ 89.00
Hyper Typer, Typing Tutor		$ 39.95	$ 32.00
Milestone, Project Manager		$ 99.00	$ 89.00
Random House Speller		$ 50.00	$ 47.00
— Call for WordStar enhancing DM/PT products			
FYI, INC.			
FYI 3000		$395.00	$295.00
INFOCOM			
Zork I		$ 39.95	$ 37.00
Zork II & III each		$ 44.95	$ 42.95
PlanetFall		$ 39.95	$ 37.00
Witness		$ 39.95	$ 37.00
— all other Infocom series, call for prices			
MICRONOVA			
FontStar, Print Bright WordStar		$ 49.00	$ 44.00
MICROPRO			
WordStar		$495.00	$219.00
Mail Merge		$ 99.00	$ 89.00
MICROSOFT			
MultiPlan		$195.00	$139.00
MBasic Compiler		$395.00	$299.00
MICROSOLUTIONS			
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Form Letters with Valdocs 2.00 and Cardfile

by Dan Oja

One of the unique features of Valdocs 2.00 is the Cardfile program. Cardfile is a simple data base ideally suited to applications like name and address files. One of the major uses for such a file is the production of form letters. However, Valdocs 2.00 does not currently appear to include a specific mail merge or form letter option as does Valdocs+.

I recently developed a procedure which allows printing of customized letters using Valdocs 2.00 and information from the Cardfile program. This procedure will create form letters that consist of your return address, the name and address of the person to whom you are sending the letter, a customized salutation (Dear Mr. Smith or Dear Dr. Jones), and the body of the letter.

This procedure is limited to one page letters. Each letter would have a unique address and salutation, but the body of the letter would be the same for each letter in the mailing.

Like any form letter procedure, this process requires a certain amount of setup time and is most efficient with mailings of three or more letters. If you need to print only one or two different versions of a letter, it is more efficient simply to re-type the address and salutation for each letter in the Valdocs 2.00 editor.

The actual procedure for creating form letters with Valdocs 2.00 and Cardfile is quite straight forward. However, before starting the process we must create a Cardfile data base, enter some sample name and address information, and then write the actual form letter.

ENTERING THE CARDFILE PROGRAM

Boot Valdocs 2.00 as usual. Press the MENU key. Select <M>enu of Applications. Select <L>eft drive. Insert the Valdocs 2.00 Load-Time Diskette. Select the CARDFILE.SYS program.

CREATING A CARDFILE DATABASE

Select <C>reate a new card file. Enter the title Names and Addresses. Press STORE to store the file name. The Card File Information screen will now be displayed. Press STORE to continue with the creation of the data base.

The Line Title Design screen will now be displayed. Enter the titles for each of the fields in the card file. When finished, the first eight lines of the Line Title Design should look like this:

```
Line Title Design
Last Name      :
First Name     :
Address        :
City           :
State          :
Zip            :
Phone          :
Title          :
```

NOTE: To wipe out the : : : : marks to the right of each label, press the space bar to move the cursor to the end of each line.

We will not be using the last seven lines of the Line Title Design in this sample data base, so they can be left alone. Press STORE to store the Line Titles. The Printout Line Titles screen will now be displayed. Enter the same titles for the Printout Line Titles screen that you entered for the Line Title Design. Press STORE to store the Printout Line Titles.

The Card Line Sizes screen will now be displayed. Enter the following sizes for the Card Line Sizes:

```
Address   30
City      20
State     02
Zip       05      Phone     12
Title     04
```

To conserve space, set the remaining line sizes to 00 characters. Press STORE to store the Card Line Size information. Press RETURN to indicate <Y>es - card file is correct.

ADDING NAMES AND ADDRESSES TO THE CARDFILE DATABASE

We will now enter sample names and addresses into the Cardfile data base. Select <U>se a card file. Press RETRIEVE to select the last card file which was created, Names and Addresses. Select <A>dd a card. Enter the information for a card. Press STORE to store the card. Repeat the <A>dd a card process for two or more additional cards.

CREATING THE PRINT DESIGN

Select <P>rintout design and printing. Select <A>dd a new print design. Enter the name **Form Letter Insert** on the Design name line. Enter the following values for the label design information:

```
Labels per row = 1
    (Only one label across)
Label width in characters = 40
Label length in lines = 6
    (Allows six lines per label)
Spaces before first label = 10
    (10 character left margin)
Spaces between labels = 0
    (Only one row of labels)
Lines between label rows = 60
    (Places each label in
    correct position on page)
```

Two of these numbers are of particular importance. The Spaces before first label value determines the left margin of the address information. If we intend to use the default Valdocs margin of 1", then a value of 10 will correctly position the address information. We would have to adjust this value if we intended to use a left margin different from 1".

The "Lines between label rows value" is determined by the length of the paper we are using and the label length in lines. A normal page of paper is 66 lines long. Since our label is 6 lines long, the printer will have to advance 60 additional lines in order to be correctly placed to begin printing the next page. This figure would need to be adjusted if we used a different number of lines per label, or paper of a different length.

The cursor will now move to the first field of the actual label layout area. Position the cursor on the left edge of the top line and press the WORD key. Select <F>irst name and press RETURN. The cursor will be positioned one space to the right of the first name field. Press the WORD key. Select <L>ast name and press RETURN. Press RETURN to move the cursor to the left edge of the second

field. Press the WORD key. Select <A>ddress. Press RETURN to move the cursor to the left edge of the third line. Press the WORD key. Select <C>ity. The cursor will be positioned one space to the right of the city field. Move the cursor to the left one space and type a comma (,). This comma will separate the City and State fields. Press the SPACE BAR to move the cursor one space to the right. Press the WORD key. Select <S>tate. Press the WORD key. Select <Z>ip. Press RETURN three times to move the cursor to the left edge of the last label line.

Type Dear and press the SPACE BAR. Press the WORD key. Select <M>ore options. Select <T>itle. Press the WORD key. Select <L>ast name. Move the cursor one space to the left. Type a colon (:). The label layout area should look like the following:

```
First Name  Last Name
Address
City                    , ST Zip

Dear Title Last Name  :
```

Press STORE to store the print design.

PRINTING THE LABEL INFORMATION

Select <P>rint cards. Select Form Letter Insert as the print design to be used. Select <A>ll cards. It is now necessary to adjust the paper so that the label information is printed in the correct position. Make sure the paper is correctly loaded in your printer. Press the OFF-LINE button on the printer. Press the LF (line-feed) button 13 times. These line feeds correctly position the paper for printing the address and salutation. The first six lines moved the paper below the default top margin of a Valdocs 2.00 document. The next five lines moved it below our return address. The next two lines allowed for two blank lines between your return address and their address. Press the OFF-LINE button to put the printer back on line. Press the PRINT key to begin printing the label information. Each page will have an address which starts thirteen lines down the page, followed by the salutation. **Do not tear off the sheets as they emerge from the printer!**

When the last sheet is printed, press the OFF-LINE button to take the printer off line. Press the FF (form feed) button two times. There must be one full blank sheet of paper after the last page with a label printed on it. Separate the printed pages from the remaining paper in your printer (Be sure to leave one full blank page after the last printed page.)

Turn the printer off. Remove the paper from the printer and reload the printed pages with the top of the first label page in the usual print position. Turn the printer back on.

LEAVING THE CARD FILE PROGRAM

To leave the card file program, press UNDO two times. Press RETURN to close the current card file. Press UNDO to return to the Menu of Applications.

CREATING THE LETTER

From the Menu of Applications, press EDIT (new keyboard) or UNDO (old keyboard). Insert the Run-Time disk when prompted and press RETURN.

Leave the top and left margins at their default settings. Type your return address on the top line of the page. We have calculated five lines for your address (Name, Street Address, City/State/Zip, Phone, Date). If your return address requires fewer than five lines, press RETURN as many times as necessary so that we have used a total of five lines.

After completing the return address, press RETURN two times to leave two blank spaces between the return address and their address. Press RETURN six times to leave room for the label information which has already been printed on each page. Press RETURN two more times to leave two additional blank lines before the body of the letter. Type the body of the letter, complete with closing. You may store the letter if desired.

PRINTING THE LETTER

To print the letter, press the PRINT key. Select <S>et Printing Default Values. Set the number of copies to the number of pre-addressed label pages which you printed from the cardfile system. Press UNDO to return to the Print Option menu. Select the letter as the document to be printed from <D>isplayed Document or <I>ndexed Document(s). Press PRINT to begin the print process.

Your letter will be printed in the correct spaces on the pages which have been pre-printed with the address information. When printing is complete, separate the letters, sign, fold, stamp, and mail.

That completes the procedure for creating form letters with the Valdocs 2.00 word processor and the card file list manager. The procedure may sound complex, but once the card file system has been set up, it really is a very straight forward and effective procedure. *I hope this procedure proves of assistance in your use of Valdocs 2.00.*

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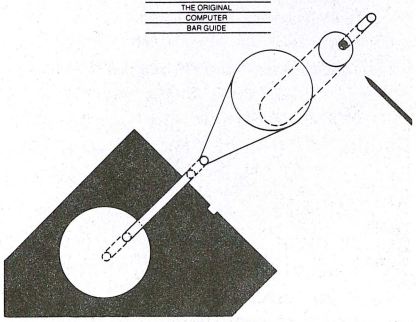
THE ORIGINAL COMPUTER BAR GUIDE



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Compu/CHART

by Larry Hufty

SPEC SPOT

Product: Compu/CHART
Type: Stock Market Trend Analysis
Computer: Epson QX-10
Operating System: CP/M 2.2, (also available in MS-DOS)
Required Peripherals: Printer is highly recommended
Price: $99.95 plus $3 shipping
Ease of Use: Very easy to use
Documentation: Good
Summary: An easy, well written program to plot trend analysis without the use of graphics
Manufacturer:
NewTEK Industries
P.O. Box 46116
Los Angeles, CA 90046
213-874-6669

For most people playing the stock market, and making money at it is as much an accident as it is a result of strategic planning. The average investor doesn't depend on stock market analysis, but mostly on following the herd. As most stock brokers will tell you, once the general public begins buying a particular issue, it's time to bail out; the stock will soon be hitting its high. As with most endeavors, the key to success with the stock market is knowledge and action.

There are two primary views of stock market action: the fundamental view, and the technical view. The fundamentalist holds that a stock will be strong because the company itself is strong. While the technician maintains that the market is cyclical, and that timing is paramount. Actually, they are both correct, but even a strong company will have its market swings. Consequently, the rewards can be substantial for those who can identify major market peaks and valleys and take the appropriate action based on this knowledge.

Compu/CHART is a program that can provide you with the means to identify those major market swings. Charting several different items and overlaying them manually is cumbersome; Compu/CHART changes all that.

Compu/CHART is a dream come true for the stock market technician.

Compu/CHART is a dream come true for the stock market technician. With the use of this program, the investor can chart several different stocks, compare their activity, and decipher its meaning. But, in order to make use of a program such as Compu/CHART, the investor must first have a working knowledge of technical analysis. One of the best books written on the subject (TECHNICAL ANALYSIS EXPLAINED: An Illustrated Guide for the Investor by Martin J. Pring, McGraw-Hill, 1980) says: "The technical approach to investment is essentially a reflection of the idea that the stock market moves in trends which are determined by the changing attitudes of investors to a variety of economic, monetary, political and psychological forces. The art of technical analysis, for it is an art, is to identify changes in such trends at an early stage and to maintain an investment posture until a reversal of that trend is indicated."

Compu/CHART's 42 page manual is well laid out, with the last 5 pages devoted to giving you a basic understanding of chart reading. The newest version of Compu/CHART has some major improvements, an indication that the author is truly interested in providing a continually improving product. The best improvement is in the inputting of data. Compu/CHART allows for 72 points of data, always dropping off the oldest value to make room for new. In the old version, if you wanted to start with only one week (5 days) of data for instance, you would have to first input 67 zeros to make up for the lack of data. The new version has obviated that task, which was a major detraction.

DATA INPUT

As was already mentioned, Compu/CHART allows for 72 points of data. If you are charting the daily movement of a stock, this would be 72 days. You might opt to plot weekly, monthly, or hourly activities; the main objective of this program is to plot 72 points of data, the user decides what time frame those points of value are to represent.

When first starting a file, you are able to input up to 72 entries. When updating a file, you are limited to 5 entries at a time. You are then recycled to the secondary menu, where you can once again choose to input 5 entries. Although initially, this

seemed somewhat cumbersome, anyone who is faithfully following a stock is not going to wait any longer than 5 days to update a file.

There are two ways to edit a bad entry. The first is to start the file anew. The second is to use CP/M's EDitor or some other non-document editor, such as WORDSTAR, and adjust the erroneous entry. I found the use of the NON-DOCUMENT mode of WORDSTAR quite acceptable. Since correcting mistakes is somewhat exacting, it is extremely important that you input your data carefully, especially if you do not have a grasp of the Editor. I feel the author should have made some provision for correcting a bad entry. (NOTE: several discussions with the author have provided a few enhancements to the next version, such as entry correction.)

CHART GENERATION

In order to interpret a chart, a technician needs to see two things: the actual daily price charted, and a moving average, be it an 18 day, a 32 day, or any moving average he chooses. A moving average tends to tone down the fluctuations of stock prices into a smoothed trend, so that distortions are reduced to a minimum. A simple moving average, such as Compu/CHART uses is constructed by totaling a set of data and dividing that total by the number of observations. This process is repeated daily, with the oldest data point dropping off. So with a 32 day moving average, the 33rd day is always dropped off with the addition of a new day.

Maybe you prefer something different from the factory standard of 18, 32 and 72 day moving averages. Different investment instruments may, at times, dictate different optimal moving averages. With Compu/CHART you can determine what average you want plotted during the Chart Generation period. You will at that time receive two screen charts: the default and your selections. By watching where the daily line crosses a moving average line, one can, with some degree of accuracy, judge the future of a stock. Sometimes, a stock might move in relation to some other factor. For instance, maybe XYZ Corporation tends to go up a week after the Dow Jones Industrial Averages go up. With Compu/CHART, you can have up to four charts generated concurrently. Since the computer has already scaled the range of stock price movement so that it will fill the screen, overlapping of XYZ Corp and the INDU will give you a superb comparison chart. Unfortunately, this option is only available on the monitor, and does not have a print option. A way around this problem is to print out the comparison charts on the screen, and then do a screen dump using CTRL "PRINT".

Regular chart generation can be accomplished in one of two ways. The first option available is to have the entire chart displayed on the screen. Then, if you are satisfied with how it looks, you can opt to make a hard copy, or continue to input data. The chart, be it the screen or hardcopy version, is full of information. On the screen and hard copy, you have the 18, 32 and 72 day moving average, and the daily quotes. At this point, the the screen chart will make some basic assumptions. It will ascertain for you whether it is a BEAR or BULL Market, if you have reached a NEW BOTTOM or a NEW HIGH, and then issue projections of when to BUY and when to SELL. When the price approaches the target BUY area, you will receive a 1ST STAGE ALERT TO BUY, and when the price first breaks through the target area, you will receive a 2nd STAGE ALERT. One thing to keep in mind, and the program will remind you on occasion, is that the projections are just that, projections. They are based on an analytical model, and do not take into account any outside influences. The best projection, (besides "hindsight") is careful chart interpretation.

The hard copy chart provides an offset column in the printout of the daily values. The offset occurs on those days when the daily value and the first moving average cross.

A new feature just introduced is a sub-program to re-configure the price when a stock split has occurred. This enables you to go on tracking it without setting up a file from scratch.

SUMMARY

Compu/CHART is an excellent program for charting the day to day movements of stocks or any other medium you may wish to follow (e.g., weather, temperature etc.). For a program priced at under $100 it is a superior buy. Other programs of this nature may do more, or may provide neater and fancier graphics, but the price tag would surely reflect this. For anyone doing basic plotting, I highly recommend this program. It can save you many hours, and maybe help you make a few dollars. ■

Larry Hufty is an Operations Manager with Merrill Lynch in Buffalo, New York.

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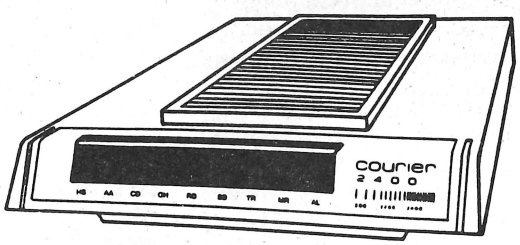

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Performance: Very good to excellent
Documentation: Excellent "Easy Tutorial User's Guide," 100 pages including index. Excellent advanced tutorial and reference manual.
Summary: Very comprehensive and easy to learn and use personal and business database management package. Interfaces with WordStar and SuperCalc files. File protection, security, and maintainance features.
Manufacturer:
Pearlsoft Software, Inc.,
P.O. Box 13850
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With hundreds of personal and business database management programs on the market, how do you find one that will meet not only your simplest needs of tracking and sorting names and addresses, but also your more demanding tasks of producing calculated invoices or other complex forms, while remaining "easy to learn and use ?". Your first impulse might be to go out and buy the number one seller based on the fact that if it SELLS well it must be good. Probably not entirely unfounded, but from personal experience, it is the "easy to learn and easy to use" part that is difficult to achieve. Alternatively, you might choose a DBMS that comes well reviewed and highly recommended; Personal Pearl.

Personal PEARL from Pearlsoft, comes in an attractively designed blue box with three master diskettes, an "Easy Tutorial User's Guide" of about 100 pages, and a larger, more comprehensive, "Advanced Tutorial and Reference Manual." To get started you will need five formatted diskettes to make working copies of the three masters following the WELCOME instructions on disk one, and a copy of CP/M 2.2 B.

The Easy Tutorial User's Guide is just that, a brief manual and tutorial that will get you from the opening WELCOME menu through designing forms, reports, entering and sorting data, and producing a finished report through examples and step-by-step screen illustrations. To be up and running with a USEFUL database form, having made working copies, designed a form, designed a report, and entered a few data files, should not take more than 30 minutes.

The program displays on-screen menus at the bottom of the screen for all phases of use. Simple control-key commands add/edit, save/replace, and print data records. The same applies for displaying on-screen Help, moving from the previous record to the next record, or deleting records from the file. A real time saver in entering data is the CTRL-N command which "duplicates last record" information in a designated field.

An "open" format allows you to design the form either for data entry or a report in any way you like. The eight character form name convention is enhanced by the Personal PEARL prompt "ENTER DESCRIPTION" which allows the user to enter a lengthy description of the form name (e.g., FORM = ACCTS, DESCRIPTION = Customer Accounts Mailing List). Field length is not limited as is the case in many other DBMS.

Characters, numbers, or dates may be specified in each field, as well as whether information is or is not always required for a specific field. Arithmetic and algebraic calculation of fields is possible, for use in producing inventory or invoice forms and reports with automatic calculation of balances or inventory on hand.

Fields may be sorted and prioritized by up to seven field names, and order of sort is easily changed. A sort of 200 records with 14 lines and sorted on 3 of 30 fields, took 45 seconds, with output to either printer or console.

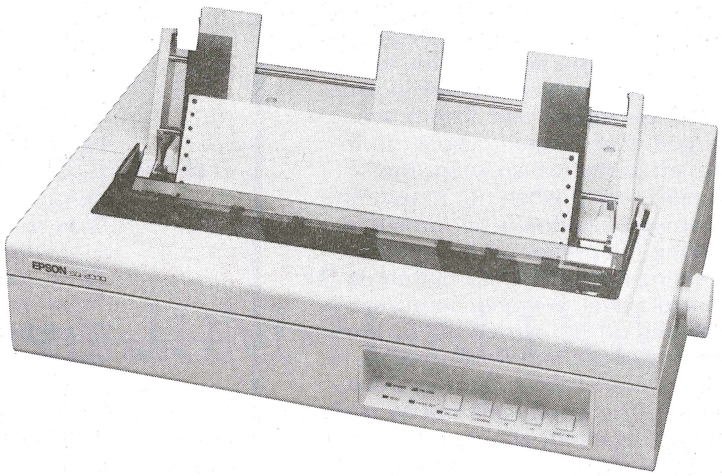
The Reference manual is comprehensive. All Help Text is included as are all error messages one might encounter. Special sections are devoted to interfacing Personal PEARL with WordStar and SuperCalc files for greater data manipulation such as mailmerge, and "what-if" spreadsheet calculations taken from your database information. Several useful "templates" are included that allow new users with more sophisticated needs to get started right away with minor "customizing" for their own business.

The shortcomings of the program are relatively few. The disk swapping is a bit annoying. However, I usually use only the Enter Data/Produce Reports disk and a data disk for most operations (I put the SORT program on the Enter Data disk to speed up this operation and to eliminate a disk swap). This problem is eliminated entirely when the program is on a hard disk. Another minor annoyance is that occasionally, the record goes bright intensity on half the record. The first time this occurred I thought I had really messed up (apparently not), but it does NOT affect data or the program in any way. The documentation regarding printing multiple reports on a single page is just a bit vague. After re-reading it I was able to produce multiple 14 line reports on a page with a double line space between reports. Producing labels one or two across is easy and straight forward.

Personal PEARL is an effective, easily learned, comprehensive personal/business database management system. All modules are menu driven with simple and easily learned command structures. Forms and reports can be produced quickly and with as much or little "glitter" as desired. At about half the cost of other powerful database systems, Personal PEARL is a real "gem." ■

SQ-2000

Ink Jet Printer



by Mike Van Winkle

SPEC SPOT

Product: SQ-2000
Type: Ink jet printer
Required Peripherals: Interface card #7171 ($95) for QX-10 or 16.
Price: $2295.
Ease of Use: Easy to setup and use.
Performance: Impressive.
Documentation: Good.
Summary: A 24 nozzle, drop-on demand ink-jet printer. Extremely quiet and fast; draft mode 176 cps, NLQ 106 cps. Over 200 typestyles, graphics capabilities, and user definable characters.
Manufacturer:
Epson America
2780 Lomita Blvd.
Torrance, CA 90505

The name Epson has always meant high quality dot-matrix printers, but the rumors of Epson making other types of printers are now a reality. The new SQ-2000 is a state-of-the-art, 24 nozzle, drop-on demand ink-jet printer. It features draft quality printing at 176 cps, with letter quality output at 106 cps. In addition, it has 136 columns (pica) to 220 columns (condensed) printing, over 200 typestyles, graphics capabilities, user definable characters, and uses most of the standard Epson codes. A #7192 multifont board ($199) makes additional typestyles available that work with font selecting software packages.

The operating manual included with the unit is a pleasant surprise, considering the limited documentation that accompanies the LQ-1500. I also prefer receiving one manual, as compared to the two manuals which accompany the FX-80. The manual is 184 pages long including the appendix and index. Well written in the usual Epson fashion, it has information on set-up, general operation, programming, and maintenance. There are several helpful charts, and lots of examples written in MBASIC to illustrate programming techniques.

The set-up procedure for the SQ-2000 is similar to that of the other printers in the Epson line. You start by installing the paper feed knob, then you snap the plastic cover at the top left rear of the unit off, to reveal the ink tank compartment. Included with the unit is a tank of ink which holds both 190cc's of ink, and 40cc's of cleaning fluid. The ink, which is only available in the standard black, will produce about 3 million characters per tank. Inserting or removing the tank is done by pushing down, or pulling out, and a notch on its side keeps it from being inserted backwards. Two sharp tubes protrude from the bottom of the compartment and puncture the tank when inserted - one tube carries ink, while the other carries the cleaning fluid. Next you have to remove a 'U' shaped bracket at the back of the unit (a phillips screwdriver is required). This will reveal the interface card compartment. The SQ-2000, like the LQ-1500, requires an optional interface card to operate; it would be nice if an interface were included, rather than being available as an option. You have the choice of the following cards: Parallel #7171 ($95), Serial #7148 ($150), or IEEE #7165 ($150), as well as 32K buffer versions (parallel #7172, and serial #7149 each $209). Once selected, slide the card in and set the DIP switches to match your hardware (most computers can probably use factory settings). You may use switch number 2-7 to select Draft or NLQ output. Plug in the power cord and attach the SQ to your computer with the appropriate cable.

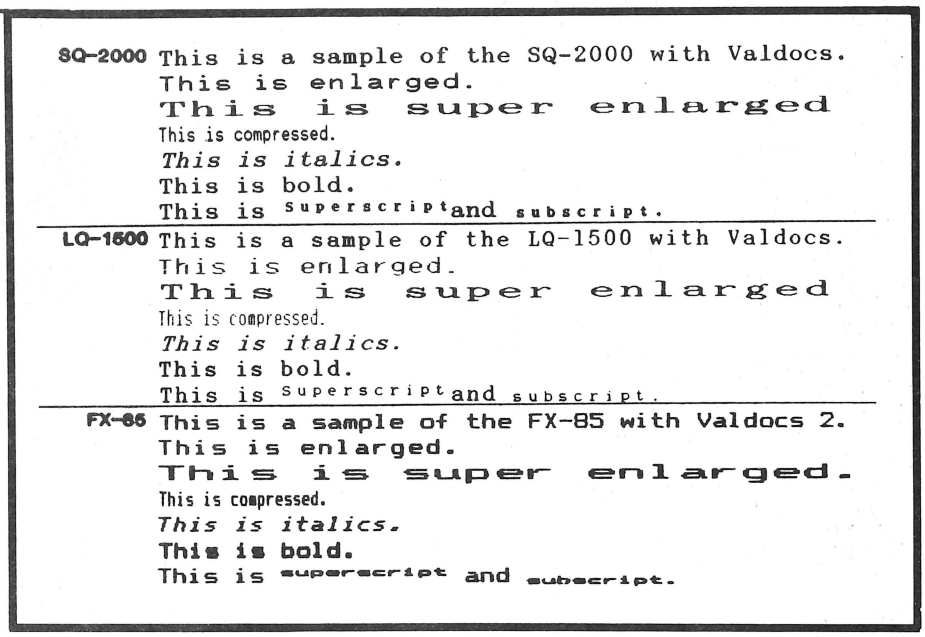
Next you have to choose what type of paper you are going to use. The unit comes with a single sheet paper guide similar to that of the LQ-1500, however, it does not tilt back to serve as a continuous paper guide. An optional tractor unit (#8302), which also includes a paper separator for smooth feeding, is available for continuous form paper. The guide seems to work better than the one used on the LQ-1500, but that is a matter of preference. It attaches in the same manner as tractor feeds on other Epson printers. The cut-sheet feeder available for the LQ-1500 does not fit the SQ-2000. As for the type of paper to use, there is a small pack of letter sized paper included with the unit. I have found that the 18# paper I normally use absorbs the ink and gives a blotted appearance; the paper supplied with the machine produces a clear product. Paper with a low absorption rate will produce the best print quality. The manual suggests problems you might encounter if you try to print mailing labels, and recommends testing different samples before buying large quantities. It also advises that you call your dealer for special paper. However, as a dealer I have not yet been informed of its availability.

The initial operation of the printer is a bit unusual only because ink from a new tank requires priming before it reaches the head. This procedure must be run before operating the printer, and takes about five minutes. When you change an ink cartridge, it is suggested that you perform a cleaning operation. This feature sets the SQ-2000 apart from all other ink-jet printers. To keep the nozzles

from clogging, the printer has a cleaning cycle which purges the ink nozzles in the head with cleaning fluid. There is a device to the left side of the platen which appears to wipe off excess liquids and absorb the purged fluid. There is also a cap to the left of that which keeps the nozzles sealed when not in use. The cleaning operation is performed by placing the printer off line, and by pressing the CLEANING button on the control panel. A more complete cleaning can be carried out by turning the power off, and then on again - while holding down the CLEANING button. The printer will not be ready to print again for about two minutes, and you should not turn the power off while this operation is in progress, as it can dilute the ink at the head with cleaning fluid and further cleaning will be needed. The unit will automatically perform a cleaning cycle when turned on, and once again when turned back off. The manual suggests you perform the special cleaning whenever the printer won't be used for more than a month. It should also be performed when the printer is stored at temperatures over 40 degrees centigrade, or when it is to be transported. When printing long documents, or pictures from graphics programs, the printer will pause for a fraction of a second to clean itself, and then resume printing. It may also startle you by cleaning itself at times when it is resting.

The SQ-2000 is a very fast printer, which produces very little noise during operation. The sound of the head sliding back and forth, is the only noise you hear during printing, however, the cleaning operations make a bit of noise. Still, it is quieter than most printers, and would work out nicely in a library or in a quiet office atmosphere. In Draft mode it is slightly slower than that of the LQ-1500, however, when printing in Near Letter Quality mode, the SQ-2000 is about 40% faster. Using the supplied paper produced almost daisy wheel quality, while normal paper was blotted and not acceptable as letter quality. A coated stock or bond, non-porous paper will produce the best results. Even on the supplied paper it did not produce as crisp a character as the LQ-1500 I regularly use, however it was still quite acceptable.

I tested the unit for graphics capabilities with both QXDRAW and QPLOTTER, and the results on normal paper were not at all impressive. Once again, using the special paper gave better results, but still not quite as sharp as with the LQ-1500. There is one temporary problem with both the


SQ-2000 This is a sample of the SQ-2000 with Valdocs.
This is enlarged.
This is super enlarged
This is compressed.
This is italics.
This is bold.
This is superscript and subscript.
LQ-1500 This is a sample of the LQ-1500 with Valdocs.
This is enlarged.
This is super enlarged
This is compressed.
This is italics.
This is bold.
This is superscript and subscript.
FX-85 This is a sample of the FX-85 with Valdocs 2.
This is enlarged.
This is super enlarged.
This is compressed.
This is italics.
This is bold.
This is superscript and subscript.

SQ-2000 and the LQ-1500: as of this writing neither of the above mentioned programs, or any other that I am aware of, have drivers capable of dealing with the 15 x 23 to 37 x 23 dot matrices of these units. When printing a circle from the above programs, with either machine, the result was an oval. I'm sure these programs, and others, will include these features in future versions, as the resolution is so fine. I noticed that when printing graphics, the image is not as dark as the characters in text mode, but that might have to do with the densities selected by each program.

Used with Valdocs Version 1, WordStar, and several other editors, the machine performed flawlessly. It accepted all the standard Epson codes, and I found only one quirk. Even though it uses the same interface as the LQ-1500, and has the same number of print elements, there are some differences between the two. I printed a demo written for the LQ-1500 on the SQ-2000, and received partially perfect copy, however some areas would not print out correctly. Epson Technical Support suggests reversing the cable connections between printer and computer. It appears that some Centronics cables have different internal connections, which can cause funny things to happen. Epson and Rising Star are cooperating on developing a printer driver program for Valdocs Version 2. At this time not all of the features of Valdocs 2 are supported.

The SQ-2000 is an extremely large printer. It measures 6 1/2" high, by 23 3/8" wide, by 15 3/4" deep. Installing the sheet guide adds another 5 inches overall. Its weight of 40 lbs., makes it the heaviest model with the Epson name on it, however, the Comrex CR-420 - which is actually an Epson - has it beat by about 20 lbs. The top front of the unit is actually a dust cover that swings open for access to the print head compartment. There is a set of four DIP switches under the cover, near the paper feed knob. Numbers 1 to 3, select the number of characters printed per line (65 to 136), and number 4 is used with the optional cut-sheet feeders. The controls are recessed in the front right of the unit, instead of on the top right,as in the case with most Epson printers. To the left of the controls there are five LED indicators for POWER, READY, INK LOW, PAPER OUT, and ON LINE. To the right, there are buttons labeled ON LINE, CLEANING, FF, LF, and SHEET FEED. The last button, along with the sheet guide, make single sheet loading a breeze. You simply drop a sheet in the guide and press the button. The paper bail is opened, and the sheet loaded automatically.

I must admit I was very impressed with the print quality considering previous demonstrations of ink-jet printers, however, I personally feel the LQ-1500 produces a sharper copy in both Draft and NLQ printing, at a lower cost, and on any type of paper. Some things to consider are that the printing method does not impact on the paper, therefore multiple copies are not possible, and porous letterhead paper will not produce acceptable output. If these are not problems in your application, and you need fast, quiet, Virtually Letter Quality printing, then this is definitely state-of-the-art. ■

The P.R.O. System 10M Hard Drive

By Allen Howell

When the Comrex ComFiler 10M hard drive went out of production, many QX-10 owners were looking for third party hard drive vendors. 10M hard drives are available from companies such as Bi-Tech and Forrest Micro, but their prices still hoover around $1,700 for a 10M unit (as of November 1985).

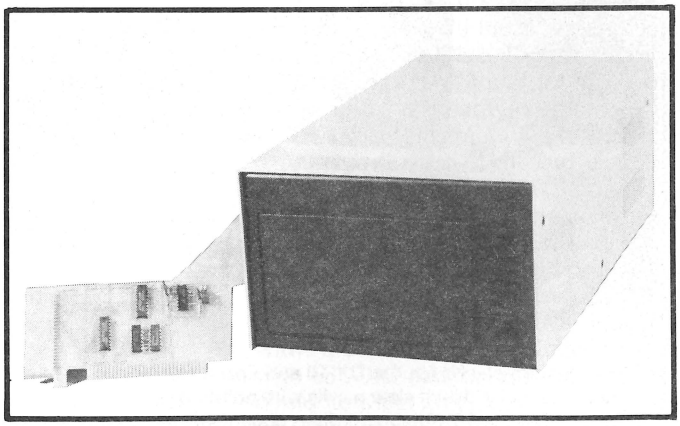
We found out about P.R.O. System of Kansas City late in the summer of '85, and were very interested in what Les Poston, owner of P.R.O. System, had to offer. His company is selling a 10M hard drive for the QX-10/16 at a retail price of only $1,295. This unit's dimensions are almost exactly the same as the ComFiler, and it was designed to run the same software as the ComFiler. Thus, all of the hard drive utilities that accompany CP/M B2.25 and up are totally compatible with P.R.O. System's hard drive unit. The hard drive is of the plated media, not the standard metal oxide coating which is often the cause of data failures. Except for the fan, the unit makes practically no noise at all, even when performing heavy disk I/O. The unit also comes with a 1 year warranty.

During a recent telephone conversation with Les, I asked him several questions about himself and his business. Les explained that he's been working with computers since 1977 and it was mainly a hobby. He worked out of an extra room in his house until the business started to grow. Initially he started the business as a repair service for various brands of computers, but Les also provides data services, which involves, among other services, downloading files from large mainframe computers to micros.

This is exactly what Les was doing for a QX-10 customer when he realized he needed a hard drive to store large 2 to 3 Megabyte data files. After purchasing a ComFiler from his local Epson Dealer, he took it back to his business, connected up the drive and powered it on. "It was dead. It absolutely wouldn't do anything except make squealing noises." He returned the inoperable ComFiler for another one, and "It ran long enough to get the data in the drive...then it died." After several days, Les decided to borrow a ComFiler from a friend, and after finally completing his task, he concluded that he could build a hard drive himself that was at least as dependable as the ComFiler.

"I built up a prototype, and a friend of mine saw it, and he asked if he could buy it. I told him I'd give him this one, and I'll build another one." After this happened two more times, Les decided that he didn't want to make any more friendship deals. "I decided to go ahead and do a board. So I went ahead and did a host adapter, and started to put together where all the stuff would come from; cases, boards, power supply's...."

When asked to explain what his first prototype unit looked like, Les said, "A stand up vertical floppy disk case with a switching power supply that barely had enough specs to turn everything on, half the cables I hand soldered on because I didn't have the proper connectors, and it was rather crude, but it worked! And it worked really well. It's rather amusing looking...no fan, it got hot enough to heat a sandwich on it, and the case wouldn't fit on it properly because the controller board was too big." He went on to say that his first prototype was still running until September '85 (it was built in February '85), when he offered to give the purchaser of his first unit a brand new one in exchange for his old prototype. He sold his first prototype unit for $850, and he didn't make anything from it since he had to pay list price for the parts.



Les explained that since he has his prototype hard drive back, it should match his QX-10 very well. "I've been running the QX-10 since it first hit. In fact, my unit at home says 'serial number 55 - patent pending', and a label on the back says 'prototype'...a big red label. The case, the lid, everything is different. The cord can't be unplugged since it's hard wired into the unit...it's totally different, even the PC board." Les boast that he's probably the only person in the U.S. that has a prototype QX-10.

He has also experimented with an 8" floppy disk drive, and actually attached one to his QX-10. "When I got the hard drive going for the QX-10, it had a floppy disk circuit on it, so I went ahead and attached the 8" drive, and wrote all the drivers for it. You could run this program, and it would go over and check the 8" floppy, tell you what you

got over there, and it would allow you to copy files to and from it. It was not an actual physical drive of the system, but more of a utility you could run to pull data off of." In the spare time that Les gets in between shipping his hard drives, he's still working on a fully operational 8" floppy drive supplement for the QX-10. "More than likely I'll set up a hard disk system where if a customer later on decides to get the 8" option, that would cost so much, or a customer could buy the 8" system first, then add on a hard drive later." Obviously, the biggest advantage to an optional 8" drive would be for backup purposes. Since the 8" drive can hold over 1M of data, one 10M hard disk could be backed-up on only ten 8" disks, whereas it would take as many as thirty 5" floppy disks. As soon as Les gets his 8" floppy disk drivers completed, such a system may be available.

> It works fine with the QX-10 as well as the QX-16. . .It has performed flawlessly

When asked how the production of the units has been going, Les stated that demand for his system has drastically increased since the ComFiler has ceased production. Way back in May '85, he felt that if he could sell 10 units a month that would satisfy him. Around July, his demand grew to about 20 units, and presently, it has grown to about 40 or 50 units per month, a rate which he expects to maintain at least until Christmas. "The weakest link in my operation is the cases. I have to order them 5 weeks in advance. Everything else I have is simply off-the-shelf parts, except the host cards and the cases, which were specially designed for our unit."

Many people considered it amusing when Les mentioned these relatively low monthly output figures. Why, then, does he put up with the responsibility and headaches of manufacturing hard drives? "Because it's fun. Once it becomes a burden, and not fun anymore, I'll move on to something else." With such a carefree attitude, I asked him what would happen if he did quit selling them. Where could the purchasers of the hard drive go if they need servicing? "I'm not going anywhere. I've been here since '76, and even if I were to quit selling them, I can still service them. That's still half of my business, computer equipment repair."

Future plans? Besides the 8" floppy disk option, he is also working on a 10M removable cartridge drive unit. This unit would work almost exactly like a regular 10M sealed unit, however, 10M cartridges, each containing different data, are interchangeable with the unit. 10M cartridges are also 5 1/4" square, but they are enclosed in a plastic case about as thick as 8 track stereo tapes. Les predicts this unit will sell for under $1,800.

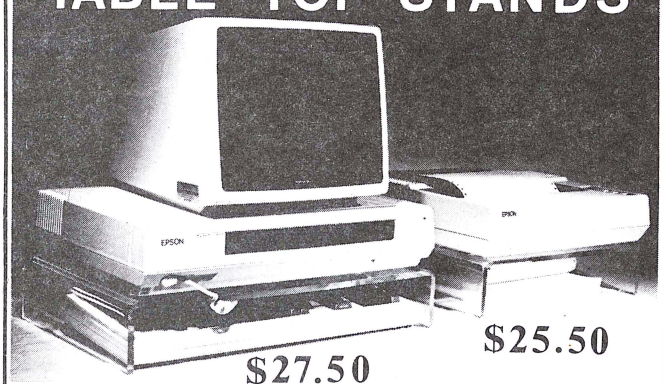
Another project currently in the works is a memory expansion upgrade board for the Titan card. Present owners of 256k Titan boards can obtain a 256k add on board from P.R.O. System, to upgrade their Titan boards to a total of 512k. Les plans on having this product available in December '85. Cost? Under $200.00.

We have been using this hard drive with various equipment since September 85. It works fine with the QX-10 as well as the QX-16, and we also have one of our Bi-Tech multiplexers interfaced to the hard drive. It has performed flawlessly.

If you would like more information or dealer pricing on the P.R.O. System hard drive, contact Les at:

P.R.O. Systems
10601 West 63rd St.
Shawnee, KS 66203
(913) 631-0665

TABLE TOP STANDS



$25.50

$27.50

These custom stands for the QX-10 and Epson printers are made of heavy gauge 3/8 inch clear aclylic with polished edges and non-skid feet. The QX-10's keyboard slides underneath when not in use to protect it and free desk space for other uses. Inserting disks is easier and screen is raised to a better viewing height. Sturdy printer stand provides front or rear access to paper and requires no extra desk space. Available for 80 or 100 series printers (add $3.00 for larger model). Order by mail or phone and pay by check, M.O. or C.O.D. Same day shipment and 20 day return policy. Please add $3.00 per unit for shipping and $1.65 for COD's. MD residents add 5% sales tax. Dealer inquiries invited.

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CR-128K PRINTER BUFFER

by Bob Hermann

SPEC SPOT

Product: CR-128K Printer Buffer
Type: 'Smart' Printer Buffer, with both copying capabilities and serial to parallel/parallel to serial conversion capacity.
Required Peripherals: An extra printer cable.
Price: $299.00
Ease of Use: Adequate
Performance: Excellent, in some respects; questions with regard to long term reliability.
Documentation: Good, but some important data is missing.
Summary: A must for anyone now wasting money and time waiting on their printer. But, difficulties were encountered with the serial to parallel conversion capability with the PX-8. The device produces an unusual amount of heat.

When a computer sends data to a printer faster than the printer can print it, a printer buffer is a time saver. If you are sending large amounts of data to your printer, your computer could spend a great deal of time waiting for the printer to finish printing. A printer buffer like the CR-128, with 128 Kilobytes of memory, can accept data from your computer as fast as it is able to send it. The data will be stored in the buffer until the printer is able to accept it. Meanwhile your computer is freed and not waiting for the printer - you can do other tasks.

With a total of nine functions, the CR-128 offers more than just data-storing capabilities. There are a total of six pushbuttons on its control panel. From left to right you have: Shift, Next/Prior Page, Copy x 10/Copy x 1, Reset/Bypass, Page Pause/Pause and the Print button. The Shift and Print buttons are single functioned, while the remaining four buttons each have dual functions - the secondary function being invoked by the Shift button.

These controls permit you to pause printing immediately or at the end of a page, resume printing, make up to 255 copies of the contents of the buffer memory, advance to the next or return to the prior page, or even to bypass the buffer entirely. Note that these references to pages comprise data still in the CR-128 buffer, and not data that have already been transferred to the printer's own buffer. LEDs on the Shift, Bypass and Pause buttons indicate when each of these features is in operation.

The CR-128 will also perform serial to parallel or parallel to serial conversions. With a total of four ports (serial in/out and and parallel in/out) you could conceivably have two printers (one serial and one parallel) and two computers (again one serial and one parallel) attached to the buffer simultaneously. You could then use the two sets of dip switches located on the bottom of the CR-128 to direct output from the parallel computer to the serial printer, or from the serial computer to the parallel printer. The location of the dip switches on the underside of the instrument is inconvenient. The dip switches control a feature that may be used frequently, and should have been located on the side, front, or even the top of the CR-128.

The serial communications alternatives offered include: baud rates from 110 to 19200 baud; either X-on/X-off, CTS/DTR or ETX/ACK; even, odd or no parity; and either 7 or 8 bit data length.

Another feature of the buffer is the ability to accept either ASCII (American Standard Code for Information Interchange) or EBCDIC (Extended Binary-Coded Decimal Information) data. Most micro computer users would be dealing with ASCII data. The capacity to deal with EBCDIC data means that you could connect an Epson printer to an IBM mini or mainframe computer. The cover of the buffer must be removed to access the jumpers that control this function.

The manual for the buffer is complete in most respects. Operation of all of the functions is thoroughly explained, and there are several methods dictated for making use of the buffer's copying features. The shortcomings of the manual (and of the buffer itself) come to light when you try to make use of its serial to parallel conversion feature to hook the portable Epson Geneva computer up to a parallel Epson printer.

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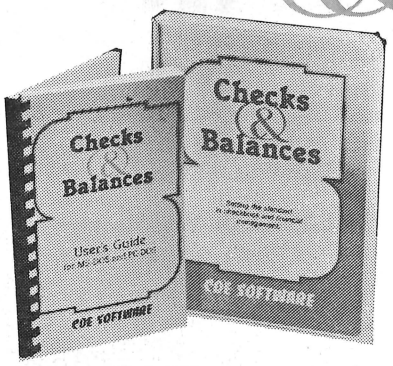

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You would think that you could just make the appropriate dip switch settings on the buffer, set the communications parameters for the Geneva's RS232 port accordingly, hook the PX 725 printer cable up to the CR-128 and you would be in business. Not so. It turns out that the pinouts on the serial ports of the buffer do not match those of the 725 (or even the 724) cable. To use the Geneva with the buffer it is necessary to cut the 725 cable and redirect several of the lines. Pin 3 (brown) must be connected to pin 2 (red), and pin 20 (purple) connected to pin 5 (white). Or, you could do as I did and use the Smart Cable from IQ Technologies. Nowhere in the documentation is this incompatibility mentioned, nor is there anywhere a diagram of the pinouts of the serial port so that similar incompatibilities with other computers or printers might be resolved.

> If you are losing time and money waiting on your printer, then the CR-128 is worth considering.

The slowness of the Geneva makes it seem like the buffer is not functioning. But it is -- even at 9600 baud there is no noticeable decrease in the amount of time the Geneva is occupied 'printing' a six page document. Attempts to use 19200 baud proved fruitless.

One other point needs to be mentioned. Both the top and the bottom of the buffer get exceedingly hot after it has been on for a while. This was discovered the hard way when several disks left on top of the buffer were warped to the extent of being rendered useless. This heat seems to have no ill effect on the operation of the buffer itself. Even after being intentionally left on for several days at a time, it still performed flawlessly. It does, however, elicit doubts as to the long term functionality of the mechanism.

The 'smart' features of the buffer will be more useful with a printer that has a small buffer itself. If you are using it with the new line of Epson printers which have 8K buffers, then that is 8K of data that can be passed from the CR-128, on to the printer.

Even with the difficulties encountered in using the CR-128 as a serial to parallel converter with the PX-8, it was found to be a marvelous time saver when used with the QX computers. The more you use a printer, the more significant the use of a printer buffer like the CR-128 becomes. If you are losing money waiting on your printer, then give the CR-128 serious consideration. ■

HX Exchange

by David Sweeney

As many of you are already aware, the HX-20 is a very versatile and unique portable. While part of the computer industry marvelled at its true portability and integrated peripherals, another part criticized its small screen and limited software availability. I believe that part of the controversy is due to the fact that the HX-20, which was actually the first and only briefcase portable when it was released, was always compared to completely different types of computers (ie. desktops, transportables, hand-helds etc.). Since it was a pioneer there was really no basis for comparison. Another factor contributing to the HX-20's 'identity crisis' was partly due to the fact that EPSON did not target it for particular market segments the way that subsequent portable manufacturers did. This situation actually promoted certain companies to use the computer in ways (and places) that were unimaginable for other computers. I wonder if EPSON planned it that way ?

The fact remains that many companies acknowledged the superb quality, and potential applications of this computer, and virtually molded it into whatever shape they wanted by adding the appropriate harware and software support. In addition to the end user support that the machine has received, it has been adopted industrially and commercially for everything from Artic weather balloons to controlling the manufacturing robots in EPSON's factories. These special applications have indirectly provided a very large software base for the HX-20 with a great deal of additional support available to the end user.

This column will focus upon areas of interest to HX-20 users. I hope to broaden people's views as to the vast capabilities of the little machine and at the same time provide a means for HX-20 enthusiasts to get answers to some of those ' I've always wondered how that works... ' type of questions. To the best of my ability I will try to answer many of the frequently asked questions that I receive from my customers as well as those that have been indicated as areas of interest by EPSON CONNECTION.

I have been 'living and breathing' HX-20 since it first came out and and I'm still learning. I have written many machine language and BASIC applications for it (including PowerPak whose source code is now over half a football field long!) and built many hardware interfaces as well, so feel free to ask anything. Any topic suggestions, and questions will be greatly appreciated, and should be sent to the address indicated at the end of this article. User feedback is essential to the success of this column, so please talk to us!

One subject of great curiosity seems to be the use of the MONITOR option on the main menu. The MONITOR commands, described in pp 399-403 of the VOL 2 reference manual, are primarily used as a means for programmers to enter, execute, and debug machine language programs. However, the MONITOR contains some interesting uses for BASIC programmers and non-programmers as well.

Many people are not aware of the POWER-ON KEYSTACK feature supported by the HX-20. This feature is relatively easy to implement, and the only place that it can be (user) defined is in the MONITOR. The MONITOR 'K' (for Keystack) command allows one to put a series of keystrokes into the keyboard buffer whenever the machine is powered up or reset.

For example, to setup your HX-20 to automatically execute the third item on your menu (ie. SKIWRITER, EPSONLINK, POWERPAK or a BASIC application), enter the following sequence:

Continued on page 44

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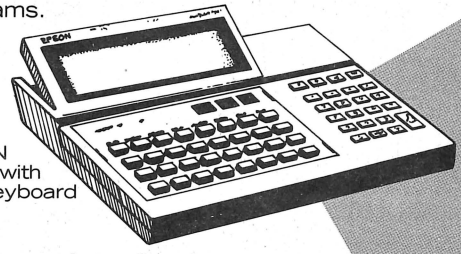

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...With the 2 Meg Semidisk Board

by David W. Robinson

I've spent a good deal of time with a SEMIDISK in my QX-10, and have come to the following conclusion: Get a 2 megabyte (2M) board if you can afford to. The RSI current discount makes the 2M board more affordable, and if you want to have all of VALDOCS+ at your beck and call in RAM then you'll need every bit of 2 megabytes. A battery backup is VERY important!

Once you have a 2M SemiDisk board, here's what you do with it:

- ★ **TURN OFF AND UNPLUG YOUR QX.**
- ★ Plug the battery back-up cable into the female socket, which is located towards the bus plug side of the board.
- ★ Install the board as you normally would any other expansion board. Your first SEMIDISK board should be installed in the #5 slot, which is to the far left as you face your machine. The reason for this is that there is slightly more room for the board in this slot. The other slots may be used for more SEMIDISKS, but you may have to GENTLY push down some of the components nearby. BE CAREFUL WITH THE BATTERY CABLE AS YOU CLOSE THE LID TO THE EXPANSION SLOTS. MAKE SURE THAT THERE IS PLENTY OF CLEARANCE.
- ★ Plug your QX back in, and turn it on. Run the standard chip integrity test as described in the manual.
- ★ Boot VALDOCS+ normally. You will notice that VALDOCS+ automatically recognizes the presence of the SEMIDISK, and autoboots the INDEXER overlay into the ramdisk before continuing with the rest of its bootup.
- ★ Go into MENU, and from there into SETUP. Choose the Valdocs System Characteristics option, and set your overlays options for <S>ystem disk. Leave your System and Data Disk options set at "A" and "B" respectively. This will allow you to continue to operate off of your floppies UNTIL YOU FINISH SETTING UP THE SEMIDISK. Now STORE your choices.
- ★ Go into COPYDISK, and copy all modules from VALDOCS+ that you want to have available. Don't worry, with 2 megabytes there's plenty of room. Since the SEMIDISK is designated in VALDOCS as drive "M", you'll need to make sure that you specify "M" as the destination drive. Then copy all the data files that you want to work with onto the SEMIDISK.
- ★ Once finished, exit COPYDISK and return to MENU and Exit to TPM III. (You'll have to be in the "Expert" mode under SETUP to get into TPM.) At the A>, enter "M:". At M> enter "Prot *.* <0>". This will reset all of the protection levels of all programs and files to 0, thus allowing you to manipulate them easily, should you need to.
- ★ Now enter "Restart" at the M>. Once VALDOCS+ has reinitialized, go back to the SETUP option in MENU one more time. Under Valdocs System Characteristics, specify "M" for BOTH your system disk and your data disk. Leave user areas at "0", unless you have a good reason to do otherwise (Rising Star support recommended selecting M1 for data disk). LEAVE YOUR OVERLAYS ON THE SYSTEM DISK, NOT ON THE MEMORY DISK. STORE your choices. (Make sure that you STORE your SETUP choices on the LOAD disk; although some people may have a working disk configuration that is SETUP on the RUN-TIME disk.)

This sounds complicated, but it isn't too hard, really. NOW what happens when you boot up is quite pleasant. Try it. Put your LOAD disk into the left drive, and a data disk (just in case you want to COPYDISK files from the SEMIDISK to a floppy) in the right drive. Reboot. VALDOCS+ will initialize, then VOILA! 20-25 seconds later you'll be in whatever module you designated in SETUP. Automatically. You don't have to do ANYTHING else. All functions will now take place in the SEMIDISK (drive M:), and you won't have to do any more disk swapping to use VALDOCS+, even if you want to jump to VALPAINT or VALDRAW. All functions will increase in speed of execution by an average of about 30%; many modules are MUCH faster than that. AND THERE'S NO MORE DISK SWAPPING, as long as you copy all the programs you want to use to it.

If you own VALDOCS+, and can afford another eight hundred dollar investment, you should have a SEMIDISK. If you get a 2M, try this method of setting it up--it works nicely!

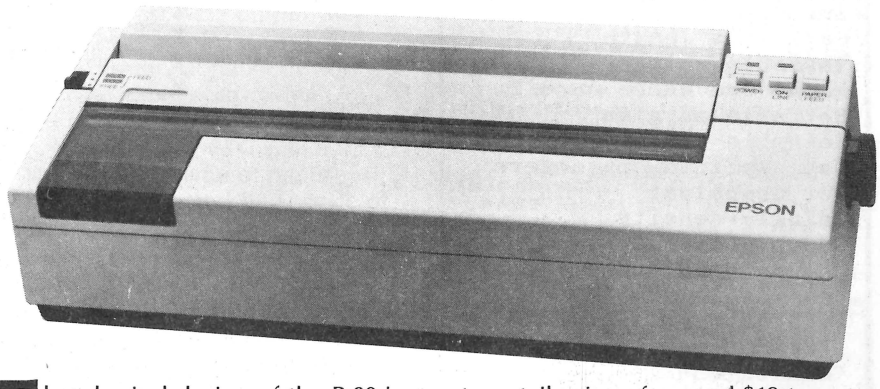
Editors Note: We suggest you copy ALL of the LOAD, RUN1, and RUN2, files onto the SemiDisk.

David Robinson is the Editor of the "Scratchpad," Newsletter of the Portland Epson Group in Oregon. He also teaches history, economics, political philosophy and is chairman of the social studies department at Portland Christian High School. In addition to being SYSOP of the "PEGBOARD BBS" one of Davids' hobbies is amateur photography.

EPSON's P-80

Portable Printer

by Sherwin Levinson



SPEC SPOT

Product: Epson P-80 Portable Printer
Type: Portable battery-operated printer, thermal and thermal transfer.
Computer: Any with RS-232 serial port that recognizes hardware "handshaking" provided by the P-80 on the DTR line.
Required peripherals:
Cable: Cable for use with Geneva PX-8 portable computer (#725) lists for $19.
Price: $249
Ease of use: Excellent, but not well mated to Portable WordStar.
Performance: Excellent with thermal paper, barely legible with thermal transfer on plain paper.
Documentation: Not well organized, but fairly complete.
Summary: The P-80 provides convenient, rugged, and relatively quiet portable printing, with certain adjustments. Print quality is excellent on thermal paper in emphasized mode, acceptable in normal print mode and varies from useless to barely legible in thermal transfer depending on the paper used. For those who need a compact lightweight source of hardcopy, the P-80 can provide an excellent solution. But be prepared to accept the compromises made to achieve the compact size and light weight.
Manufacturer:
Epson America
2780 Lomita Blvd.
Torrance, CA 90505

The physical design of the P-80 is clever, providing the convenience of familiar typewriter-style paper feed in a unit that's compact (11-3/4" wide x 2-1/2" high x 4-1/4" deep) and weighs a scant 2.4 pounds. Cut sheet or roll fed paper can be used, and a paper-out switch senses when the end of the paper is reached, disabling the printer. While the manual mentions availability of a paper roll holder, not all Epson distributors are able to obtain one.

Most of the P-80 is constructed out of plastic, including many of the moving parts which clearly contributes to the light weight of the printer. The unit does come with the Epson one-year limited warranty, covering parts and labor, which is longer than is offered by many other companies.

The P-80 printer comes with built-in rechargeable batteries, a battery charger/AC adaptor, two ribbons, and five sheets of plain paper. The NI-CAD batteries included are said to provide sufficient power to print about 60,000 characters or 30 pages per charge. In practice, this may be a bit optimistic, especially when printing in emphasized mode. A data cable is not included and, since the printer uses a 6- pin DIN connector, standard RS-232 cables will not work. A #725 cable is available from Epson at a retail price of around $19 to connect the printer to the Epson Geneva/PX-8. The manual provides pin-out details on the connector so it wouldn't be too difficult to construct a cable for other uses.

Thermal Mode

The P-80 operates in two different printing modes; thermal and thermal transfer. Thermal printing refers to printing on paper which is heat sensitive; no ribbon is used. The print head, with an expected life of 20 million characters, contains nine elements which are heated and produce small dark spots on thermal paper. As is typical with thermal paper, the dots comprising each character produced by the P-80 are sharper than those of an impact dot matrix printer, because the ink from a dot matrix printer tends to spread slightly.

Thermal Transfer Mode

The other operating mode of the P-80, thermal transfer, utilizes a special ribbon that goes between the print head and the paper. The P-80 ribbon cartridge is compact, easy to install, and has an expected life of about 40,000 characters, or twenty average pages of print. The thermal transfer process produces an image on the paper when heat from the

Figure 1: Comparison of Printer Features

	P-80	RX-80	LX-80
Compressed	X	X	X
Expanded	X	X	X
Elite		X	X
Near-letter			X
Justification			X
Emphasized	X	X	X
Double-strike	X	X	X
Underline	X	X	X
Super/subscript		X	X
Italics	X	X	X
International character sets	X	X	X
Graphics characters	X	X	X
Line spacing:			
to 1/6 or 1/8	X	X	X
to n/72-inch	X	X	X
to n/144-inch	X		
to n/216-inch		X	X
Immediate feed of n/216-inch		X	X
Set forms length	X	X	X
Variable skip over perf		X	X
Paper end sense on/off		X	X
Settable margins		X	X
Settable tabs		X	X
User-defined characters			X
Dot Graphics:			
single-density	X	X	X
double-density	X	X	X
high-speed double density		X	X
quadruple density		X	X
640 dot per line		X	X
720 dot per line		X	X
one-to-one			X

print head melts a small amount of ink from the ribbon onto the paper. In theory this gives the user the flexibility to use a wide variety of standard papers when thermal paper isn't available or desirable. It seems however, that many of the better-quality papers absorb too small of an amount of hot ink produced by thermal transfer, thus making the image barely legible.

The P-80 provides a range of print styles typical of the newer breed of Epson printers, such as the Spectrum LX-80 and the LQ-1500. All the basic features are available. Figure 1 provides a comparison of the P-80's features versus those of two other Epson printers, the old standby RX-80 and one typical of the newer generation of Epson printers, the Spectrum LX-80.

Setup

Setup is quite easy, especially if using the P-80 with an Epson Geneva/PX-8 portable computer. The manual has clear instructions. If the P-80 is to be used with a Geneva PX-8 with default port settings, you need to connect the #725 cable (not supplied) to the PX-8, plug in the AC adaptor (the printer can be run on the adaptor's power), and insert paper; if plain paper is to be used a ribbon cartridge must also be snapped into place. There are two controls on the right side of the P-80. These are a switch marked "PAPER SURFACE" and a rotating control for "DENSITY." The paper surface control, is supposed to optimize print for the difference between paper with a smooth ("SMT") surface and a rough ("RGH") one. In actuality, there is little noticeable difference except that print speed is reduced at the "RGH" setting. The density control varies the darkness of the print image. In practice, the only acceptable print quality I found was obtained with the density set at maximum.

Performance and Problems

At an advertised 45 characters per second (CPS), the P-80 should be expected to print at 45% the speed of the 100 CPS Epson RX and LX series printers. The throughput of the P-80 ranged from 8.5 CPS in emphasized mode to 11.7 CPS in standard pica. The most serious sacrifice made in the name of portability, is the print quality. Not that the quality isn't excellent with thermal paper. But in thermal transfer mode the quality ranges from acceptable to useless, depending on the type of paper.

Using the P-80 with Portable WordStar

There are three main problems with the way the P-80 works with Portable WordStar on the Geneva PX-8. First, there is no way to print near the bottom of the page (where WordStar, by default, places the page numbers) without making some modification to the printer itself. Second, there is no way to invoke the emphasized print mode, the only mode that provides print quality that many users consider adequate for documents that others may read. Third, the underscore provided by WordStar looks like a series of dashes rather than a solid line.

Operating Cost and Supplies Availability

Thermal printing on the P-80 is only slightly costlier than impact dot matrix printing, and substantially less than is thermal transfer. Unfortunately, thermal paper is not yet readily found, but more and more department and discount stores are carrying cut-sheet thermal paper to supply the thermal/thermal transfer "personal electronic typewriters." Typical pricing ranges from about $4 to $9 per hundred sheets.

Summary

The Epson P-80 printer isn't all you might expect it to be. It provides the ruggedness, one-year warranty, and availability of service that you'd expect from Epson. It is exceptionally lightweight and small, easily fitting into a standard attaché case along with a portable computer like the Geneva PX-8 or Tandy Model 100. The print quality on thermal paper is "correspondence quality." But if you need a printer that will also provide acceptable quality on plain paper, avoid the P-80. Quality on most papers, using the thermal transfer ribbon, is marginal at best. ■

Sherwin Levinson is an independent consultant specializing in helping organizations apply the best of modern data communications technology to improving their productivity. Sherwin has twenty years of experience in data processing, which includes a thirteen-year management career with Standard Oil Co. (Ind), and a University of Chicago MBA in Management Science. Sherwin is a co-founder of Transcoastal Electronic News Service (TENS), whose interactive electronic reporting on the 1984 political conventions was acclaimed by readers and traditional media alike. He also leads the Epson Geneva PX-8 users group that meets electronically in The Source's Participate section.

Epson's P-80X Portable Printer

By Bob Hermann

SPEC SPOT

Product: Epson P-80X Portable Printer
Type: Portable battery-operated printer with near - letter - quality mode. Both thermal and thermal transfer.
Computer: Primarily the Geneva PX-8 but, any with a RS-232 serial port that recognizes hardware "handshaking."
Required Cable: #725 for use with the Geneva PX-8 (Epson $19).
Price: $379
Ease of Use: Excellent (with reservations while using with Portable WordStar).
Performance: Excellent with thermal paper, marginal with thermal transfer on plain paper.
Documentation: NA
Summary: Almost identical to the P-80 with the exception of added near- letter- quality.
Manufacturer:
Epson America
2780 Lomita Blvd.
Torrance, CA 90505

The new P-80X printer is so similar to the P-80 that a separate in depth review as such is not necessary. Here is a summary of the important differences between the P-80 and the P-80X.

Externally, the P-80 and P-80X are identical except for the lack of a "PAPER SURFACE" switch on the P-80X. The P-80 specifications such as features setup, construction, and operating cost apply equally to the P-80X. However we found that the ribbons were good for only about 14-16 pages of print, instead of 20. What the P-80X offers above the P-80 is a superb near- letter- quality mode. This does come with a price, however, as the suggested retail cost of the P-80X is $379. Using a 24x16 matrix pin head, this little printer produces the best NLQ output that this author has seen from any dot-matrix printer, portable or not. But the same paper restrictions outlined for the P-80 are even more significant with the P-80X. Epson distributors have a type of paper called TRW1 (suggested retail price of $7.75 per 100 sheets). This was the only paper used with the P-80X that gave even acceptable results when used with the printer ribbon. The improvement in print quality over the P-80 comes with a corresponding decrease in speed. At half the speed of the P-80, the P-80X is the slowest printer you'll ever see. If you are using the printer to record online communications data, you will find that even 300 baud communications will be impossibly slow.

In addition to the default NLQ mode you may select a draft mode which is the equivalent of the P-80 in speed and quality. The P-80X's graphic character set is not the same as the Geneva's. Attempts to print characters above ASCII 128 result in either the printing of another character or no character at all. To avoid this confusion, set dip switch 6 to ON, telling the printer to print any ASCII character from 127 through 256 as a space. Several of the applications programs for the PX, such as the Traveling Appointment Manager from Traveling Software, make use of characters above 127. Such characters will not be printed by the P-80X. It is possible to 'fool' the P-80X into the draft mode by using screen 3 from "screen options" provided by the operating system (in CONFIG).

In summary, if you want superb near- letter- quality output from a battery-powered printer, then give the P-80X some thought. Remember, though, that there are significant limitations involved with it's use: paper type, speed, ribbon life, and it's relative incompatibility with Portable WordStar. ■

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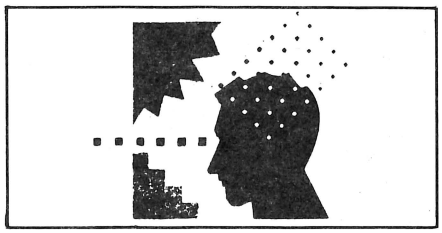

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Creative Nutrition
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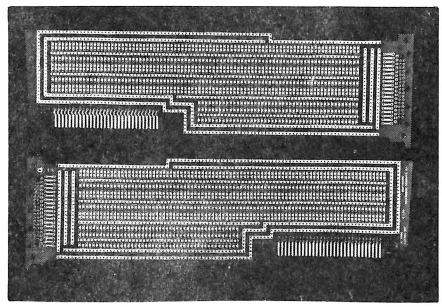
604-494-1366



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Oakbrook Terrace, IL 60181
800-826-2258

Rx for PX

by Bob Hermann

Sherwin Levinson offers the following tips on using the P-80 portable printer with Portable WordStar.

Three major complaints come to mind about the way the P-80 printer works with Portable WordStar on the Geneva. First, there is no way to print near the bottom of the page (such as the area where WordStar, by default, places the page numbers) without making some modification to the printer itself. Second, there is no way to invoke the emphasized print mode. Third, the underscore provided by WordStar looks like a series of dashes rather than a solid line.

The paper-out sensor prevents the P-80 from printing within about an inch of the bottom of the page. To compensate for this, you can either change the page length or footing margin, place your page numbers near the top of the page, or omit the page numbers." Unfortunately, none of these suggested "solutions" really solve the problem; they merely alter the format of the document so that it's not necessary to print near the page bottom. The manual suggests that "if you are going to be using WordStar most of the time, you can tape a business card or a small piece of paper over the paper-out sensor. Then you can easily print to the bottom of your page." Although this is not an elegant solution, it does work. A switch to disable the sensor would make more sense. I disabled mine in a more permanent manner by opening up the printer, and using a "twist-tie" to cause the switch to remain permanently in the on position. This may invalidate your warranty and is not generally recommended.

The other two objections can be overcome by using a special "loader" program that modifies WordStar. One particular loader is included on this month's Tape of the Month. Adapted from a much more complete program written by Gerald R. Werth of Madison, Wisconsin, the program modifies WordStar in three respects (using the carat ^ preceeding a character to mean "hold down the CTRL key while pressing that character"):

1. ^PA turns on italics and ^PN turns them off again. The unmodified WordStar uses these codes to switch to 12-pitch and back to 10-pitch; since the P-80 doesn't support 12-pitch, the loss of the function is unimportant.

2. ^PY turns the underscore on and off again, acting as a toggle. This produces a solid line underscore and not the dashed underline that the standard ^PS produces.

3. The P-80 will operate in emphasized mode only.

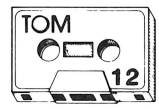
SAVING FILES TO THE H DRIVE WITH PORTABLE WORDSTAR

Chris Beatty was disappointed with the inability of Portable WordStar to save a file directly to drive H (the tape drive). Noting that you can read a file from the H drive with ^KR, he tried to write an entire document to the H drive as a block. To do this he used the following sequence of commands: ^QR ^KB ^QC ^KK ^KW and when prompted for a filename answered "H:Filename.Ext". If you do this you have the file saved directly to the tape drive!

VIEWING PAGE TWO OF THE MENU

Chris also had a question about the MENU on the PX. "At the opening menu when the PX is first turned on, in the upper right hand corner it reports the number of pages there are on the MENU. When the number of files overflows onto the second page is there any way to 'turn' the page and view them? I have tried

Tape of the Month



This month's tape features a public domain spelling checker that has been set up to work with Portable WordStar (or most any other wordprocessor that you might be using on the PX). Unfortunately, the size of the dictionary precludes its use with the PX unless you have either the 120K or a PF-10 (or PF-20) disk drive.

The program is SPELLM20.COM. It uses a 40,000 word dictionary to check the contents of a specified text file and create a new file of the same name (re-naming the original file to filename.bak). All words not found in the dictionary are marked with an "&" preceding the incorrect word, (note: to use SPELLM20.COM you must have as much free RAM as the size of the file you are checking). You can then use WordStar's ^QF and ^L commands to 'find' all the "&"s and make any necessary corrections to the indicated words. The program also allows for the creation of your own dictionary for specialized uses.

For those of you without the necessary memory (the minimum configuration uses 62K), we will offer SPELLM20 as a special two ROM package for $55.00 for a limited time (until March 1, 1986). With this package, you would place the two SPELLM20 ROMs in the B & C drives of your PX and then be able to spellcheck any file, as long as you have free RAM space equal to the size of that file. You would then replace the original ROMs and use WordStar as indicated above to make any corrections. The above price includes all documentation.

To order Tape of the Month # 12, please send a check or money order for $20.00 to the EpsonConnection, Tape Service Department, P.O. Box 14027, Detroit MI 48214. Indicate that you desire TOM-12.

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Disclaimer: The program and documentation files listed above are known to be public domain and no warranties are expressed or implied. There are no guarantees with public domain software. All of the programs have been tested on the Geneva PX-8, and are known to run. **Note** We imply no similarity, or advise any comparison, between public domain software and software that is commercially produced.

No other discounts apply to this offer.

using the curser keys along with the shift and control key." Try this undocumented solution: When on the first 'page' of the MENU, depress the shift and down arrow keys simultaneously, and you should go to the second 'page'. Return to the first 'page' by depressing the shift and up arrow keys.

NSWEEP

The Epson Connection has offered both Utility and Application public domain software on TOMs (Tapes of the Month). **Utility software** refers to programs that help in file "housekeeping chores". The PX-8 comes with several CP/M utilities: PIP, STAT, DIR, TYPE, CONFIG, SUBMIT and XSUB. In addition to these are many very useful public domain utility programs. NSWEEP is one of the most useful ones. **Application software** refers to programs that do specific jobs. Examples would be word processing (like WordStar), spreadsheets (PortaCalc), telecommunications (TERM,the GENEVA CONNECTION and MEX).

NSWEEP version 2.05, under the name of SWEEP.COM, is one of the utility programs offered on TOM 4. Written by Dave Rand, NSWEEP's main purpose is in the manipulation of files; it does some of the same things as PIP but in quicker and more efficient manner. It also has a number of features that PIP does not have, making it handy for PX-8 owners, and especially for those with the PF-10 disk drive.

It must be pointed out that NSWEEP can not fully replace PIP as there are some very important functions of PIP that NSWEEP can not perform, we'll look at these later.

As an example of what NSWEEP can do for you let's take the situation where a drive has many files, some of which are no longer necessary. Some should be discarded, some moved to one disk, some to another, etc. With PIP this would be very time consuming as wildcards could not always be used. For example, if you wanted to transfer most but not all .DOC files you couldn't use C>PIP D:=*.DOC as this would transfer all .DOC files. Not only does NSWEEP allow tagging of multiple files for transfer but also allows the viewing of a text file without having to load WS.

USING NSWEEP

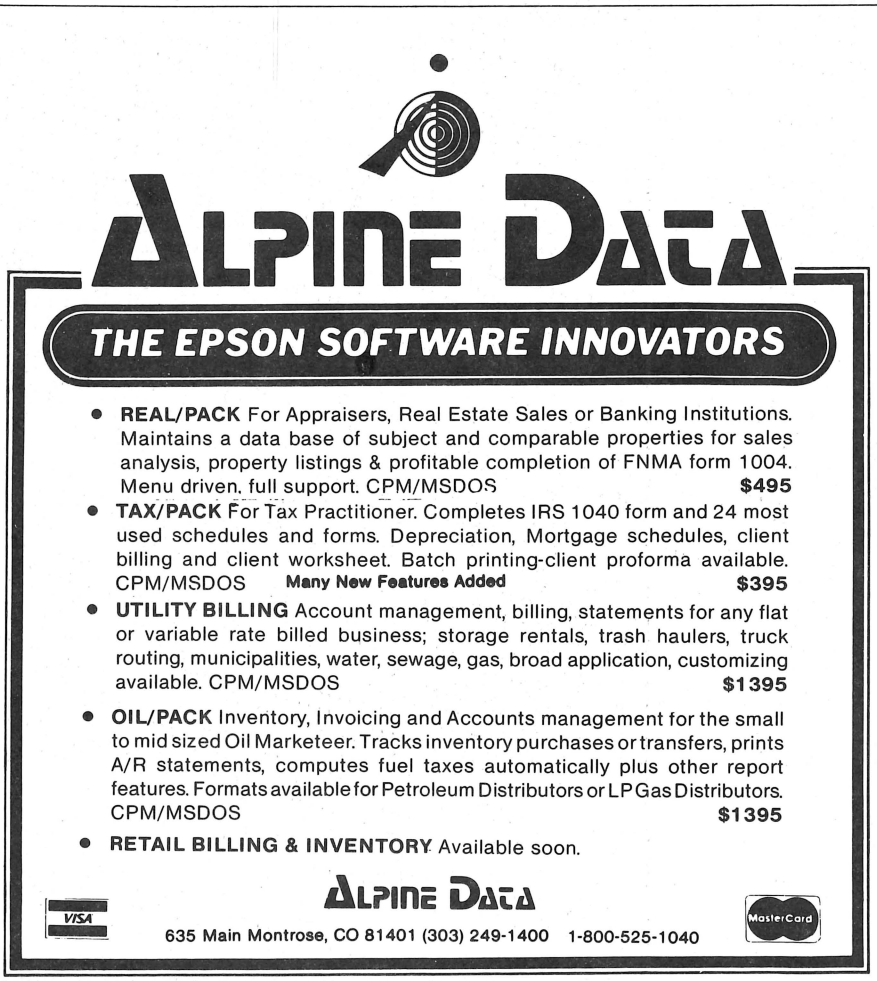
NSWEEP may be loaded from any drive (of course, you have to have it burned on a ROM to load from B or C). If it's on a disk then at the A> prompt type "D:SWEEP"; this disk can then be removed from the PF-10 and replaced with another disk whose files you wish to manipulate. Once NSWEEP is loaded you see the copyright notice followed by the logged drive and user area, the amount of space actually used by files, the number of files and the amount of free space left on the drive. The actual files are then listed one below the other, each followed by its size in K (size in records such as displayed by STAT is not given). You can advance through the list using the space bar, or go backwards by hitting "B", so that a maximum of 8 files from the directory may be displayed at any one time. The directory is circular in alphabetical order.

Individual files may be deleted, copied to another drive and/or user area, renamed, squeezed, unsqueezed, viewed on the LCD or printed (if document type, i.e. not .COM). When a WordStar document is printed from within NSWEEP all control characters are ignored; for example no page breaks, italics, bold, etc., are printed.

While moving through the directory files may be tagged by hitting "t" after the file name. These tagged files are then identified by an "*" and the total size of all tagged files is shown. Once files have been tagged, the group of tagged files may be manipulated as a block in the same manner as the individual files. As the total size of the tagged files is displayed, you can keep track of how much space you need to have on the drive they are going to be copied to.

SQUEEZING AND UNSQUEEZING

Squeezing and unsqueezing can be performed by NSWEEP. Squeezing is a way to save space on disks when storing document files (including WordStar documents) and also a way to save on-line time (money) when sending or receiving document type files via telecommunications. The files are squeezed into a compact form that can not be read by the CP/M TYPE command nor edited with WordStar. For example, a document of about 80K once squeezed would occupy only 50K, more or less. Another unique feature of NSWEEP is that you do not have to unsqueeze a file to print it out or view it on screen. The program provides a view command (V) which automatically displays it on the LCD in its unsqueezed form; NSWEEP changes the middle letter of the filename extension to a Q to indicate which files are in a squeezed format, (.DOC becomes .DQC when squeezed, and returns to .DOC when NSWEEP unsqueezes it).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MULTIPLE FILE TRANSFERS

If, for example, your RAM disk, drive A:, held ten files and you wished to transfer some of them to both the micro-cassette on drive H: and to two micro-disks on drive D: then by loading NSWEEP you could do any of the following:

- Use the "S" command to check space remaining on a disk in drive D:.
- Insert a new disk (no need to hit ^C) and again use "S" to see its available space.
- Log on to H: from within NSWEEP to see how many files are already on the micro-cassette. NSWEEP will show correctly how much space has been used by each file on H: but will not correctly show space remaining. Remember that a maximum of only twelve files may be placed on H:.
- Log on to A:. Go through the list of files on A: to choose which files to transfer. Hit "V" to view files the contents of which you are uncertain; squeeze those files you don't need often so as to save space; view any squeezed files with "V" in the normal manner; rename files if necessary so as not to confuse different files with the same name on the new disks; and delete individual files or groups of files no longer needed. You can then tag those files to be transferred noting the total size of tagged files so as not to exceed available free space on new drive.
- Move the tagged files by hitting "M" followed, by the name (and user area if desired) of the drive to which they are to be copied.
- After the first copy is made the tagged files are automatically de-tagged and are indicated with a # instead of a *. These same files can immediately be re-tagged by hitting "A" then copied to another drive or disk as above; no need to do a warm boot by quitting NSWEEP and hitting ^C. NSWEEP resets drive D: for you.
- When all the copies are made the de-tagged files can once again be re-tagged by hitting "A" then all erased with "E". The program asks if tagged or untagged files are to be erased and should each delete be confirmed. You can use "A" to re-tag all the previously tagged files or "U" to untag the individual files.

There are some features of NSWEEP that are not supported on the PX-8. The most important loss is the ability to change the R/O or SYS attributes of a file. The terminal needs to be able to support reverse video to manipulate these file attributes.

There are two or three other features of NSWEEP that add to it's flexibility which I have not covered here but which are fully covered in the accompanying documentation. Hitting "?" will display a menu of commands which are fairly self explanatory.

As noted earlier NSWEEP can not fully replace PIP. I use PIP when I wish to merge two small files into one larger new file or when I need to keep only part of a long file like

C>PIP NEWFILE.DOC=OLDFILE.DOC [Sstartstring^ZQendstring^Z]

will mean that NEWFILE.DOC contains only that part of OLDFILE.DOC between the startstring and the endstring. (see pp.65-85 of the "CP/M-80 for the PX-8" manual for full details).

NSWEEP is a very handy utility. If it's not in your library you can still order it from:

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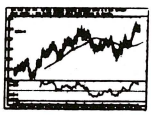
and ask for TOM # 4. The cost is $10.00. It can also be downloaded from many BBS systems.



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HX EXCHANGE

Continued from page 35

KEY(S) PRESSED	FUNCTION
1	ENTER THE MONITOR PROGRAM
K	ISSUE THE MONITOR 'K' COMMAND
3	KEY USED TO SELECT THE 3'rd MENU ITEM
[CTRL-@]	CTRL-@ MUST BE USED TO TERMINATE

NOTE: In general, when referring to a special key (like [DEL]) it will be enclosed in square brackets. [CTRL-@] should by typed by holding down the [CTRL] key and pressing the '@' key. The '.' symbol may be used to denote the [RETURN] key.

At this point you can turn off your computer and whenever it is turned on, the text string that you entered in between the K and the [CTRL-@] will be 'pushed' onto the keystack and will be interpreted exactly as though you had typed the characters in manually. In the example above, it will eliminate the need for you to select the number 3.

This may not seem to be a great time saver but, considering you are allowed to have as many as 15 characters in the string, there are many other useful commands that you may like to try. You can define any one of the following by entering the MONITOR (select 1 from the MAIN MENU) and entering the sequence as indicated below:

K2RUN.[CTRL-@]	Executes first program P1 even if there is no title.
K2WIND:RUN".[CTRL-@]	Rewind, load and execute the first BASIC program on a microcassette.
K2STATALL.[CTRL-@]	Display memory allocation of various applications in memory.
K2?DATE$:?TIME	Enter Basic and print Date and Time.
[CTRL-@]	(Same as PF-6 Default).
K[CTRL-@]	Disable the Power-On Command.

All in all, this feature can be a time saving convenience for you. The power-up command will remain active until you change it or cancel it with a null string as above. Of course you can only have one command activated at a time so you'll have to decide which one is most useful to you.

The K command is only one of the functions that can be performed by the MONITOR. Some of the other commands are beyond the scope of this article or they have counterparts in BASIC which are simpler to use. I will give a brief discussion of two commonly used commands next month.

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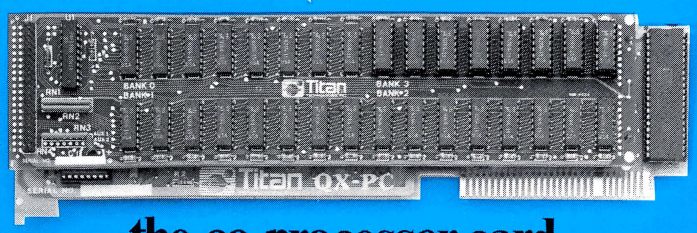

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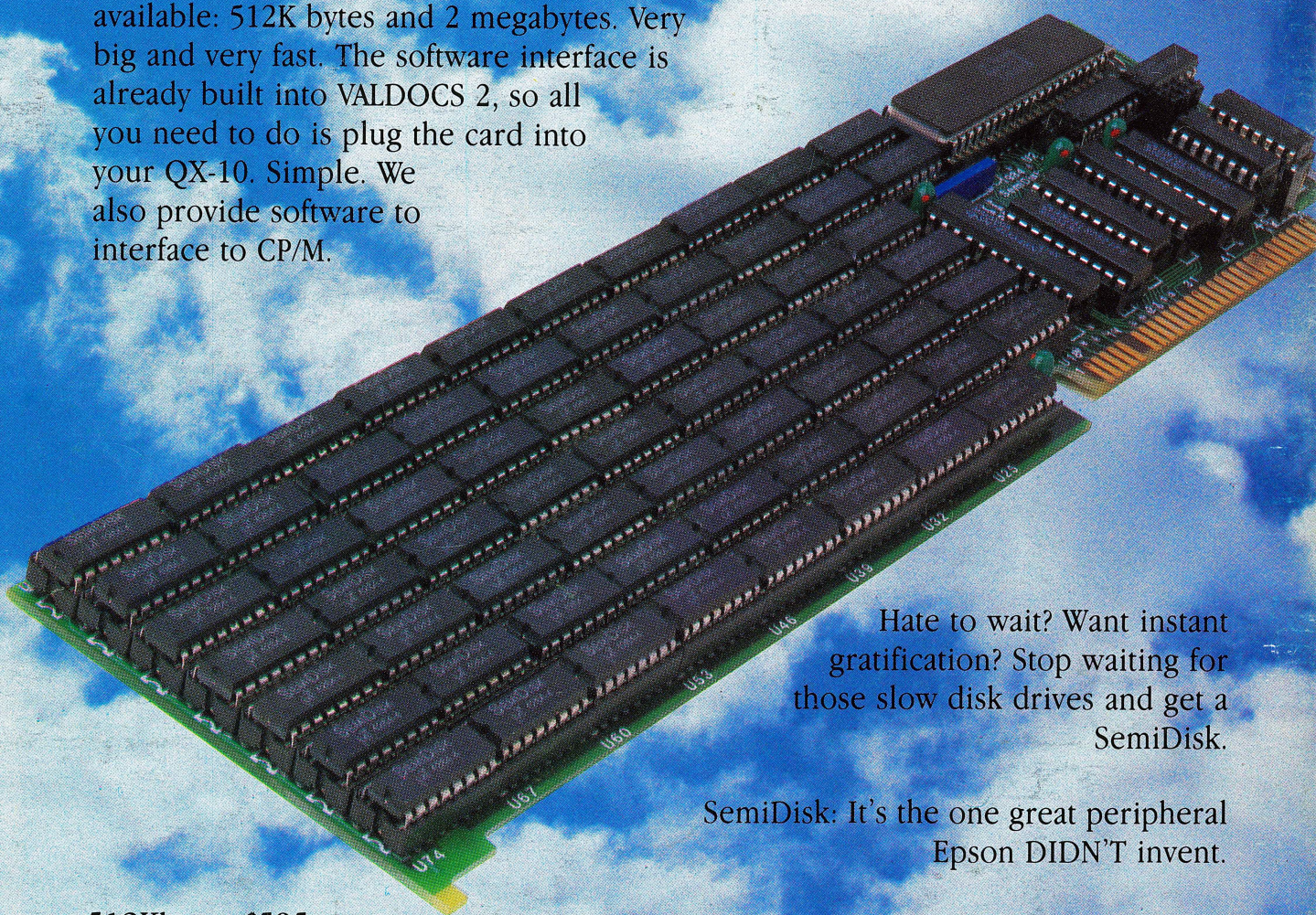

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